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BAZAAR HIGHLIGHTS

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XFX Radeon 5970 Black Edition

Belkin n52te

Cowon iAudio E2

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SECURE YOUR LIFE

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Tips & Tricks: Windows 7, Security suites, Clipboard management | **Agent001:** Wireless peripherals

A different beat

Robert Sovereign-Smith
Editor

"Four or five Digit employees *may* not be able to do much, but four or five lakh Digit readers and friends *will* make a difference!"

When Team Digit sat down this month to create the issue you're holding in your hands, we actually had a very regular, run-of-the-mill security issue planned. We were thinking PC security all along, and the more we talked about the stories we'd cover, the less we liked our own ideas.

Finally, we decided to go out and get some more real-world stories, and write a report or two. Over the past fortnight or so, the Digit Team has been out on the town. We searched for and found unsecured Wi-Fi connections, then rang doorbells and told people about them. We've gone out and shopped using credit cards that aren't ours, and then signed ridiculous names on the purchase slips, just to see if we'd get away with it. We decided to look at everyday life, and find security flaws in the technology we use.

I actually had a friend ask me, "Why?". He was referring to the effort the team was putting in to do all this. Could we really change anything? Would malls really start training their cashiers to do even cursory checks on credit card signatures just because Digit decided to buy a few things with fake signatures? Would all Indians magically start caring about securing their wireless routers, or even know how to, just because of an article in Digit?

Sadly, the answer is no.

However, if dreamers let reality and inertia get in the way of trying, the world would still be rubbing flint together to start a fire, taking shelter under a rock somewhere in Africa. Personally, I'd rather dream and try to make a difference, than sit around and crib about what's wrong with the world. I'm pretty sure you want to do the same, but where and how do we start?

One huge difference that I think we can all make is to be a little more patient and understanding. I've noticed people being restless when waiting to pay a bill, or when we're in line waiting to be frisked when we enter a mall. One cashier that I confronted, when he didn't check my credit card signature actually felt that people didn't like their identity questioned, because they found it insulting or embarrassing.

Why would I be embarrassed or insulted if someone took the trouble to secure a transaction on my credit card? However, a quick poll of friends later, I've found that this is, sadly, true. If we can accept frisking in airports as a necessary means to safeguard our lives, why can't we apply the same logic everywhere else?

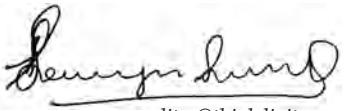
The first step we can all do is change ourselves. I suggest you start by pointing out when cashiers don't check your signature. Also, before you leave, tell them that you will have to reconsider shopping there in the future, as they don't seem to care about their customers' security. That ought to get them to consider checking signatures, at least for the next few people in line.

If you come across an unsecured Wi-Fi connection in your building, follow signal strength, ring a door bell and help your neighbours secure themselves.

We just have to lead by example, and march to a different beat. Four or five Digit employees may not be able to do much, but four or five lakh Digit readers and your friends, *will* make a difference. Trust me.

On a different note, we also decided to try and make Digit more interactive this month, with our *Crack the Code* contest (details on page 109), and since a lot of us are pixel art fans, we figured what better way than to start the game from the cover itself, with clues hidden in a pixel art cover. Our design team worked overtime this month adding in all the little details we demanded — we hope you like it.

I hope to get feedback from you on this issue — about the cover, the thoughts on this page, and all the stories within — so write in to the email address below, or use one of the other interaction points and share your experiences and ideas with the team and me.



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Disclaimer
For every *Digit* contest, there will be only one winner, unless specified otherwise.
In the event of a dispute, the Editor's decision shall be final.

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Panache Smile PC T1610
Sony Ericsson Yari
Synology Disk Station DS410j
XFX HD5970 Black Edition

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Software on DVD

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Remember to include full system configurations in your mails

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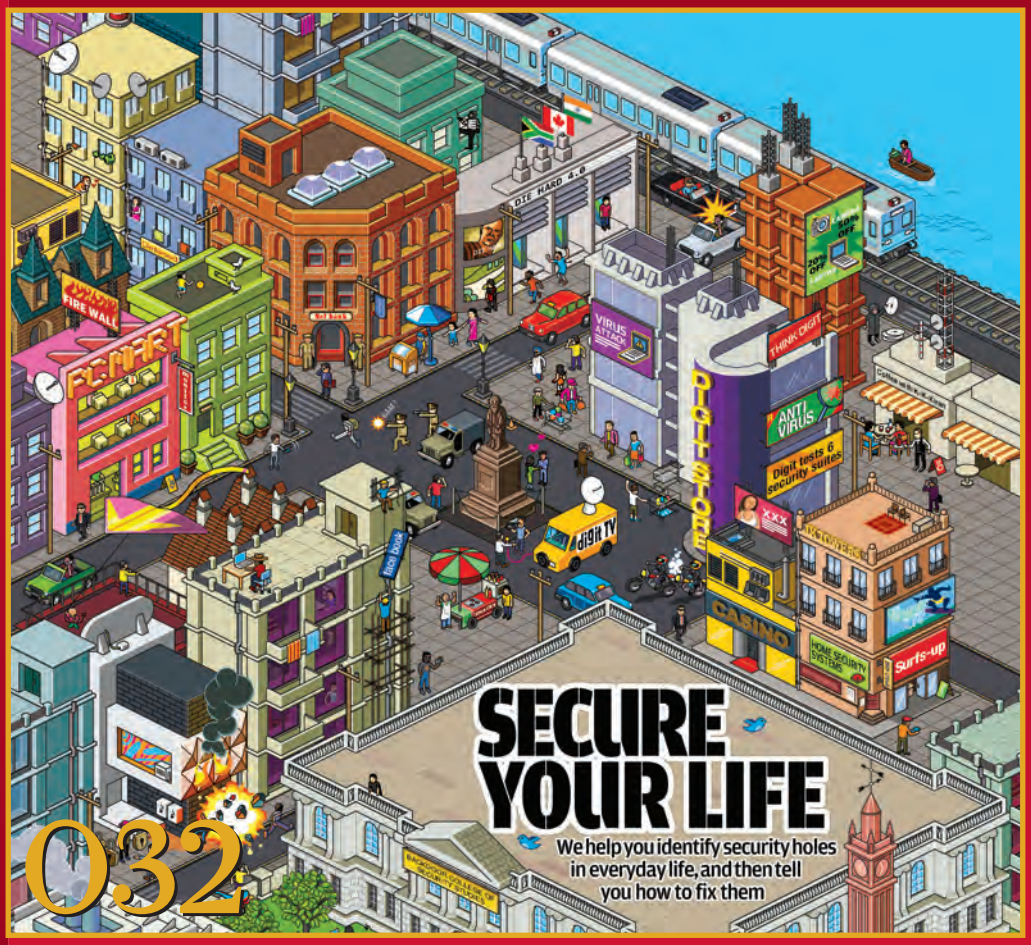

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LATEST NVIDIA AND ATI GRAPHIC CARD DRIVERS

✉ I am a new fan of Digit magazine. I picked up my first Digit copy this December and was amazed to see the fantastic world of Digit. The issue was great and the four DVDs were an added incentive. Tips and Tricks on Windows 7 was really useful, as I am a new Windows 7 user. Now I am searching for the back issues of Digit.

I want to build my career in animation and produce some really breathtaking CGI animated movies. So, I really want to say a big thank you for packing in "Fast Track to Maya" with Digit January 2010 issue.

It helped me a lot to learn the basic concepts of 3D modeling and animation. The Maya 2010 software on the DVD was like an icing on the cake. Maya 2010 tutorials videos made it easier for me to learn the software.

Thanks once again and keep on teaching more about animation. All of you are really doing a great job.

Banti Debnath

d You will find the back issues of Digit in the January Playware DVD. Fast Track to Maya was a very popular demand made on our forums at www.thinkdigit.com/forum. Join in to make your own requests, and interact with other members of the Digit community.

Rossi

✉ Six months back I bought an upgraded ACER PC having following configurations Processor: Dual core E5300@2.6GHz, Motherboard: Intel DG41RQI, RAM: Kingston 2 GB DDR2, SMPS: 250Watt, LG CD Writer & LG DVD Writer, HDD: Seaget 40GB & 320GB.

Which graphic card suits my configuration?

NVIDIA 8400GS 512MB, 9400GT 512MB or 9400GI 1GB, were suggestions by my service guy

What about the SMPS? Is it sufficient for the Graphic Card? Could you please suggest some good games for the above configuration. Also I don't have internet connection so could you please suggest some free antivirus software for my system?

Ivan Fernandes

d The GeForce 9600GT is a good GPU to consider. The card should just about run on the 250W PSU. Just make sure you have a 6-pin PCI-E power connector on it. The GeForce 9400GT and 8400GS are entry-level graphics solutions for HTPCs and for very basic gaming. There have been so many games. Start with *Call of Duty: Modern Warfare, Batman: Arkham Asylum, Dragon Age, Assassin's Creed, Borderlands and Fallout 3*. If you are looking forward to games in 2010, check out Aditya's article on page 114 in this issue. Also, check out the security suite comparison review this issue. There are several free suites you can find in this month's DVD.

Rossi

✉ I got my first desktop way back in the late nineties. Back then I used to buy Digit from my newspaper vendor and sometimes from magazine stalls since I never felt the need to collect every issue. I was more interested in the contents of the CDs as there was no broadband then. With time I became more and more addicted to your esteemed magazine and finally realised that it was not possible to miss even a single issue and ended up subscribing.

Every test, review, problem solutions, tips and tricks is brilliant. They have always helped me in some way or the other. Being a student of Computer Science, the introduction of Fast Track gave my knowledge a further boost. I always keep every copy of Digit and Fast Track in case someone else needs them.

My subscription ends next month. I can't renew as I'll be joining Infosys on 29th March, 2010 in Mysore. I'll really miss my favourite magazine for sometime till I'm placed post-training.

Finally, I want to thank the Digit Team for providing us all with quality content and helping us keep up with the fast-paced tech-world over the years. I'll be looking forward to an unbeatable innings with you soon.

Dibyendu Mondal

✉ I have been an avid reader of Digit since I was in Class 5. Now I am in class 11. It has been a great experience to learn and grow with Digit over the years and I would like to wish you all the best for the future.

One main thing that Digit has taught me is the curiosity for computer knowledge. As a result, I started experimenting and in the process learnt many new things. However, most of them have

CRACK THE CODE

Subtract 12x this page number from the page number you came from, to get the page number of the next clue...

already been discussed by Digit. But this one, Digit hasn't mentioned so far and for a change, I am going it to share it with you guys rather than the other way round.

Well, this trick is harmless and a great practical joke if executed properly. It works on Windows XP only. First, while the computer boots, go to the BIOS setup. Then, go to power management and find the ACPI option. There, disable the 'ACPI' features, save the changes and restart your system. Watch the fun. Windows won't load. The computer will keep booting itself but Windows won't load into the memory. Now, if you again 'enable' the features which you previously disabled, your computer will breathe life again and everything will be back to normal. To a layman, or the local computer dealer it will appear as a system crash and he will be at his wit's end trying to solve the problem which he dosen't even understand. Great trick, isn't it?

I would like to thank Digit for my newly discovered trick. Thanks a lot guys! It's a great magazine and keep up the good work!

Anish Pal

d Keep tinkering! But don't get too naughty.

Robert

✉ Well a very Happy New Year to all of you first. Digit always surprises me with its innovation and dedication. Every issue is better than the previous one. I have no idea how you guys do it.

But you know nothing is perfect. There was an improvement in audio quality of Digit TV, though it could have been much better. Why don't you use those costly handy cams to review? They might work better.

Please add a little humor to Digit TV presentations. People on screen seem like robots sans expression / emotions / feelings. They should smile more often. Maybe some good looking with better on screen talent should do it. The DVD interface needs some renovations as its looking repetitive. I would like to sign off by saying that you guys are the best.

VR Deepak

LETTER OF THE MONTH

✉ Did you know that I may be one of the oldest subscribers of Digit? That's right, I've been a reader of the magazine from Day One. Now here's another surprise - I am aged 76 and a graphic designer! So I may very well be the oldest subscriber in the literal sense too. I am into graphic designing just for the love of the art, and not so much for the money. If and when some one approaches me I just do it for the love of it. I now know about 11 applications thoroughly. All on my own. Digit helped me a lot in this technical navigation. I don't have words to say any thing to Digit except to say wish you all the best for having taken an old fellow like me on the journey. An old fellow who can compete with any youngsters. I am also a childhood photographer and artist. But for Digit I cannot be what I am now. Thank you.

Vidhasagar

Thank you sir, for your kind words. Your story should be an inspiration to all of us. It's always good to know of sprightly senior citizens who aren't intimidated by tech.

Robert

d You seem to be paying a lot of attention to the magazine. You will have a great headstart for what is in store for you this month. Keep the feedback about Digit TV coming in, we are trying to improve the overall audio quality and the presentation as well. Let us know what you think of episode 04 in this month's Playware DVD.

Aditya

✉ I'm from West Bengal. I have been reading Digit for the past four months. I have a few questions.

1) What is an HD Movie?
2) What is its extension ?
3) What is the ideal resolution for a 15 inch LCD monitor while playing games?
4) What is the extension of a game trailer?

I would love to have some audio enhancers in the DVD as I am a huge music enthusiast.

Sushanta

d The HD in HD movie stands for high-definition. HD video content is usually high-resolution. So while a DVD movie would be 720x480, HD movie resolutions go up to 1920x1080 (also known as 1080p/i). HD file extensions are named by containers they use. AVI, MOV, HDMOV, WMV, and MP4 are some of the common formats used. The ideal resolution on a 15-inch is 1024x768 or 1152x864 if your monitor supports it with a refresh rate of over 60Hz. Game trailers are just movies so they can be .mp4 or .avi, etc. Not sure what you mean by audio enhancers but you should look at DSP effects we provided with the DVD in the December 2009 issue.

Rossi

✉ Another inspirational note from you -"If Yan Can Cook ....." I've read it at least 15-20 times and each time I feel a new thrill of inspiration. Thanks for sharing your anecdote with us. In that editorial, you've mentioned about mIRC client. Please provide more details on mIRC in forthcoming issues as internet relay chat is the most promising online media for social communication now.

The January issue contents and articles were exhaustive and very useful. Glad to see that you have minimized product reviews to a limit and given more emphasis on feature articles. An IT security and hacking related issue is still awaited. Recently I read in the news that 1 Mbps broadband web access a legal right in Finland and countries like France, Estonia, Greece are on the same road map. But still India, being a developing country, is in its infancy as far as internet speeds go which is a matter of worry.

People now-a-days use the online media to facilitate most important and useful transactions. Internet is the gateway to future. But still our ISPs claim that broadband is a scarce resource.

Digit, the leading tech magazine, should present this matter of worries to the Indian government and bring about an internet revolution in the country.

Biswa Ranjan Nayak

d Thanks for writing. IRC is unfortunately, not the "most promising online media for social communication." Newfangled services such as Twitter and Facebook have that distinction. You will really like this issue, which specifically addresses the security issues in modern technology. You could also follow the latest happenings in technology and stay updated by following Digit on these social media platforms.

Robert

Spam Volumes
According to a latest ENISA report, less than 5 per cent of mail is actually delivered to mail boxes. 95 per cent is simply spam

Password woes
Most users keep default passwords or ultra simple ones, says security vendor Imperva after analysing 32 million passwords that emerged from the recent rockyou.com breach

Backdoor to AVG

We spoke to Gareth Williams (VP-Sales, Emerging Markets, AVG) and Karel Obluk (CTO, AVG) and got a feel of where we stand in terms of security preparedness and what to expect in the future. Here are excerpts

Q What are the potential threats expected in the near future?

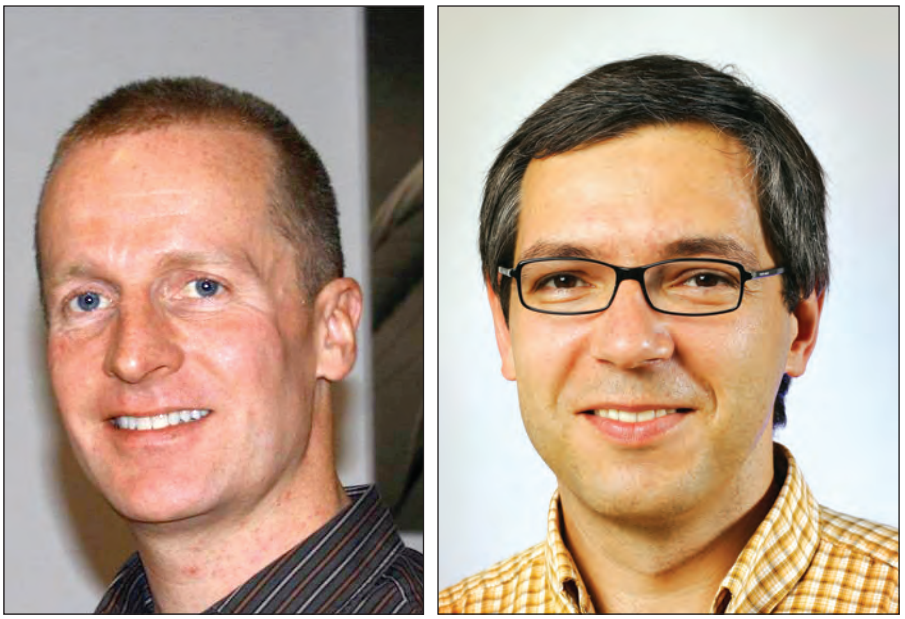
A Gareth: It can be safely predicted that in 2010 the threat environment will witness higher volumes of web-threats and be even more transient, agile and organised! Internet security threats that we expect to have significant impact this year would be more diverse automatically generated malware. Cyber criminals in the cloud, and emerging nations going online without adequate security measures will be a matter of concern.

Q What measures should one take to avoid being attacked?

A Gareth: It's necessary to use multi-layered protection beyond traditional anti-virus solutions. An anti-virus engine combined with real-time web scanning and a good behaviour layer will ensure that businesses are protected from so many attack code variations every day. Cyber-security, however, foremost is a personal responsibility. Employing basic hygiene measures will keep cyber-criminals at bay. The following tips are useful:
- Think before you link
- Stay current on security software
- Keep your private information private
Above all, users should make sure that they use reasonable judgement when operating online.

Q How do you test your anti-viruses against attacks yet to be experienced?

A Karel: AVG has several protection layers, some of them are designed specifically to cope with new threats that have not been seen yet. Emulator and generic scanner based on statistical methods is one such layer, behavior monitoring that observes behavior and actions of running process is another one. Together with LinkScanner, that scans for exploits on web pages, rather than the actual payload, we believe that we offer a very advanced protection even against new, so called 0-day threats.



Gareth Williams (VP-Sales, Emerging Markets, AVG) and Karel Obluk (CTO, AVG)

Q Cloud computing is one of the latest trends online in recent times. Do you view this is a breeding ground for infections?

A Karel: Cloud computing definitely brings some significant advantages especially to small businesses, but equally to enterprises. Virtualisation techniques that are used on these systems are very advanced and I am confident that vendors that offer various cloud computing services invest a lot in proper security. However, no program is perfect and thus I expect that these services will also be exploited by attackers and used for distribution of malicious programs and to attack other systems. Still, since these systems are usually managed very carefully by experienced admins, the likelihood of infecting these systems is much lower than for a typical home computer.

Q How does one make a career in this field (technology)?

A Gareth: Of course there are several different areas in the technology industry, some highly technical and some more commercially oriented. Whatever the chosen direction, the most important thing is a solid and relevant education. Then it's about looking for the first opportunity to gain experience and to prove that you can do a great job. If it's a technically oriented career then there are of course several specific training options available to increase skills and knowledge, but this still does not substitute for experience and the need to build up a track record. So, my suggestion for someone looking to develop a technology career is first to complete a solid education, second to choose a direction that's genuinely interesting (it's always easier to do a good job if you enjoy the work), third look out for the first opportunity to prove yourself, and fourth stay open-minded to take new or adjusted directions should the opportunity arise.

McAfee, Facebook tie-up
Facebook and anti-virus company McAfee have joined hands to create awareness about security threats in social networking

Appin Technologies

An interaction with Mr. Rajat Khare, CEO of Appin Technologies, a company that offers security services as well as training for students

Q Tell us something about yourself. How and why was Appin Technologies formed?

A I am a guy next door who was inspired by people who changed the world Entrepreneurs. I entered IIT Delhi Computer Science not to become just an engineer but to set the right base to launch a revolutionizing business. Personally, entrepreneurship is my passion, writing is my hobby and adventure is my diversion. My vision is to make a name for myself and India in the world.

Appin stands for "approaching Infinity" and was formed to make Innovation reach infinity which means never ending and always improving. Our motive is to revolutionise the research of security in India and be a leading provider of security services / products/ training in India and export it in the world.

Q What does Appin focus on? Do you provide security services as well? Tell us about some of your clients.

A Appin focuses on information and communication security product, development, services and training. Our clients include almost all defence and paramilitary forces, policing, ministries, PSU's and corporations. Some of the pioneer clients include the Indian Army, Navy, Air force, CBI, Ministry of External Affairs, Delhi airport, Hyderabad airport, Bangalore airports and the State Bank of India. These clients range from security audit, security implementation, security management services/ products including special services only provided to the government, and not to consumers.

Q How serious are companies and the government in India about security today?

A The government has become serious about security after the November 2008 attacks. Also with Chinese cyber warfare strategies, everyone is on their toes. However the private corporations are slow in implementing security due to recession but have picked up after market improvements.

Mr. Rajat Khare, CEO of Appin Technologies with ex president Dr. APJ Abdul Kalam

Q How insecure are e-commerce sites and companies in general? Is cyber terrorism a threat to them?

A Our evaluation about this is that e-commerce sites in India face a lot of threats and have been victims of cyber terrorism and are still insecure. We need to take steps of 24/7 security monitoring and implement anti-hacker methods to secure them.

Q What is the syllabus for ethical hacking courses and what is their future?

A Ethical hacking course covers all aspects of penetration testing and some aspects of exploitation over web, networks, and servers. The objective is to help access real security threats, prioritize threats and counter them. A student typically takes the job of security auditor/ penetration tester or security administrator

"...corporations are slow in implementing security..."

Q In the 90s, there were an increasing number of youth getting into hacking as a fun thing/hobby? Do you think it should be encouraged, or is hacking be a big no-no, or has that phase passed already?

A I think a right balance is required. However, ethics need to be imbibed for using hacking to secure. It's like saying, should nuclear technology be developed? The answer is Yes. Should it be used for energy production the answer is Yes. Should it be used for destroying cities like Hiroshima, the answer is No. Similar, is hacking. It's a great art if used for the right cause.

Q Are there any other companies training their employees in ethical hacking?

A Yes. In fact recently a lot of our alumni were hired by IBM, Religare, Verizon etc.

Q What is the demand of ethical hackers in the country? What kind of renumeration can one expect? What are the areas that are most in demand?

A The demand is increasing but should be coupled with knowledge of security. Most of the ethical hackers are not taught security. What Appin does differently is that we teach information security and ethical hacking together. It gives person the right perspective. A person who understands both is in high demand and one can expect salaries beginning from Rs. 12,000-50,000 depending on the profile, and their background. Most important areas are penetration testing, ISO 27001 implementation and auditing, network security and managed security.

CRACK THE CODE

'Gender' (*Noun*)
1 The state of being male or female (with reference to social or cultural differences).
2 The members of one or other sex.

HYDRA comes alive
MSI's Big Bang Fuzion motherboards appear on online shopping sites

Crysis : NYC
The upcoming Crysis 2 game won't be set in the jungles, but instead in New York city

Mood of the Community

The year 2009 was filled with surprises and expectations. We wanted to know what the Digit community thought of the year to come. 2009 was going to be the year of broadband but it wasn't. Would we see cheaper internet connections in the future? Will IPTV finally take off? You've given us your opinions and here are some of the results of the polls. For more, visit www.thinkdigit.com/d/mood_community

UPBEAT :)

Which of the following will become a disruptive technology in 2010?

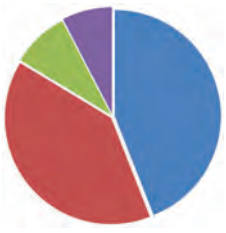
- WiMax (33.3%)
- 3D television sets (30.1%)
- NVIDIA Fermi GPU (23.6%)
- Intel Larrabee GPU (9.6%)
- Others (3.2%)

Do you think we will see better bandwidth and broadband connectivity in 2010?

- Availability should improve (1Mbps lines will be common) (64.4%)
- It will be the same as last year (25.2%)
- Available bandwidth will increase significantly (5 Mbps lines will be common) (10.2%)

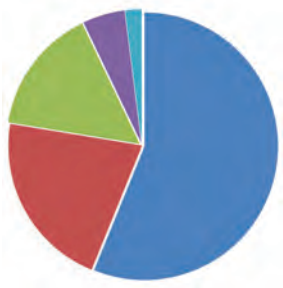
Will we be making more online purchases in India in 2010?

- Yes, online transactions will increase significantly (52.1%)
- Slightly more people will purchase online (37.2%)
- Online purchase will remain the same (10.6%)
- It will reduce next year (0%)



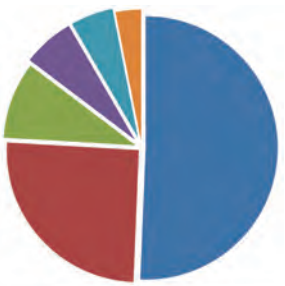
Will we be playing more MMOG games like Farmville and World or Warcraft, or single-player games like Gears of War or Half-Life?

- Only free MMOG games will do better (43.9%)
- MMOG browser-based games will be more (39.5%)
- MMOG games are a fad which will fade away (8.7%)
- MMOG games are too costly to increase in mind share (7.6%)



Will WiFi usage at home proliferate in 2010?

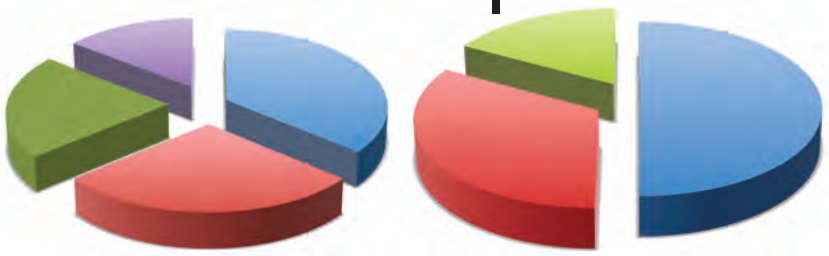
- WiFi penetration at home should marginally (56.1%)
- I think most people will use WiFi at home (21.4%)
- I do not foresee any appreciable change (15.3%)
- Government regulations will almost stop WiFi (5.1%)
- WiFi at home should decrease given security concerns (2.0%)



Where will we be playing games next year?

- The latest and greatest on the PC (50.5%)
- On a console (Xbox 360/PS3) (25.5%)
- On the mobile phone (9.4%)
- Through a browser (Flash based) (6.3%)
- Others (5.2%)
- On a handheld (PSP / DS) (3.1%)
- On a Wii (0%)

MEH :|



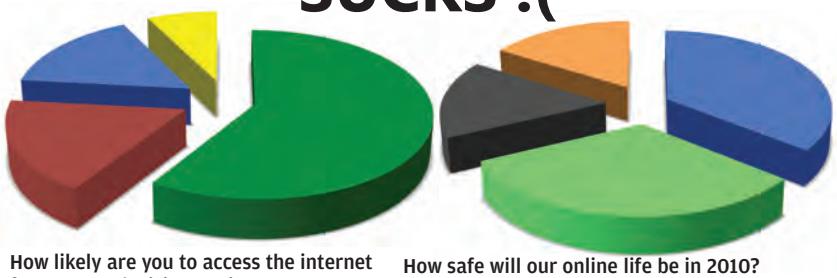
Will HDTV penetration at homes change significantly?

- HDTV sets will remain too costly to change things much (36%)
- HDTV penetration should increase marginally (27.8%)
- With increasing content and falling prices, penetration will increase significantly (21.6%)
- HDTV will almost become the default for everyone purchasing a set (14.4%)

Will there be a high-profile, high-quality game from an Indian game studio next year?

- No, Indian studios will still focus on backend work (50%)
- Yes, Indian developers will shine in 2010 (32.9%)
- No, I dont think Indian studios have the necessary skills or talent (17%)

SUCKS :(



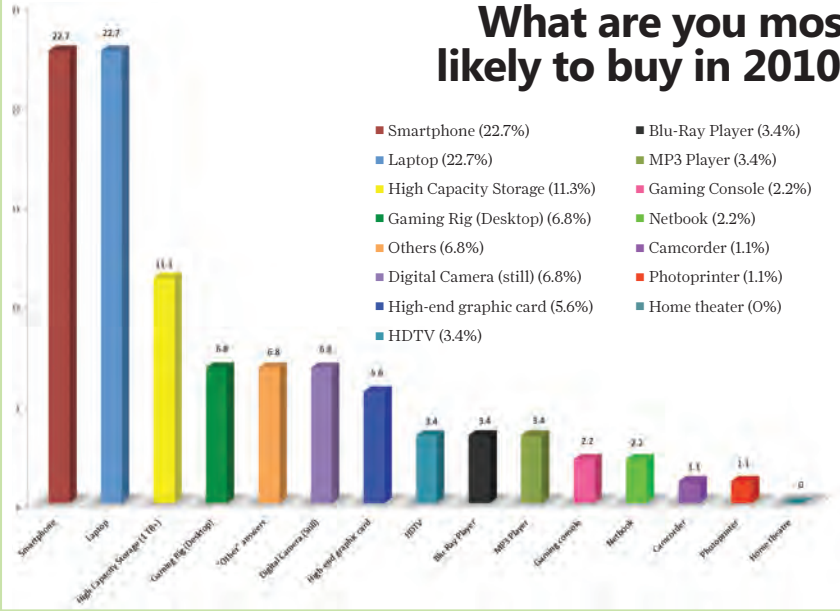
How likely are you to access the internet from your television set in 2010?

- Not very likely (58.8%)
- I don't think this is even a good idea (17.7%)
- Somewhat likely (15.8%)
- Very likely (7.4%)

How safe will our online life be in 2010?

- Online threats will increase exponentially next year (35.6%)
- Threats should be the same in 2010, no significant change (32.1%)
- Viruses and spam will be less of a problem next year (16%)
- We should be safer in 2010 due to the online and live protection services from big vendors (16%)

What are you most likely to buy in 2010?



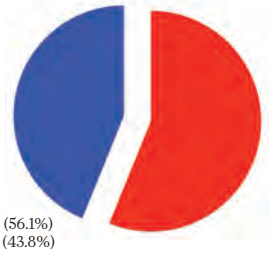
- Smartphone (22.7%)
- Laptop (22.7%)
- High Capacity Storage (11.3%)
- Gaming Rig (Desktop) (6.8%)
- Others (6.8%)
- Digital Camera (still) (6.8%)
- High-end graphic card (5.6%)
- HDTV (3.4%)
- Blu-Ray Player (3.4%)
- MP3 Player (3.4%)
- Gaming Console (2.2%)
- Netbook (2.2%)
- Camcorder (1.1%)
- Photoprinter (1.1%)
- Home theater (0%)

VERSUS

Google vs. Bing

- Google (88.7%)
- Bing (11.2%)

CPU vs. GPU



- GPU (56.1%)
- CPU (43.8%)

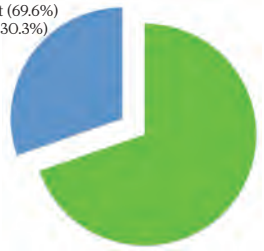
Android vs. iPhone

- Android (70.7%)
- iPhone (29.2%)

Facebook vs. Orkut

- Facebook (77.5%)
- Orkut (22.4%)

Tweet vs. blog



- Tweet (69.6%)
- Blog (30.3%)

Vacuum tubes still around!
Japan's Air Tight showcased these vacuum tubes at CES this year, for use in high-end amplifiers

Ford puts cars online
Plug in a phone to a USB port on the new Ford cars, and they become mobile hot spots

Trendspotting at CES 2010

We bring you the winning technologies and top trends of CES 2010

A farewell to keyboards

The Consumer Electronics Show (CES) 2010 was an even that finally saw many tech companies launching the Tablet PCs. It was finally good to see many manufacturers out with their version of the newest form factor. The icing on the cake being the presence of an Indian tech start up among the best names of tech world in that list. With laptops, netbooks and smartphones already offering most of the functionality expected in a tablet, it seems there is still a gap in the market somewhere. Many people want the portability of a cellphone, but with increased computing power. For many others tablet PC may just mean glorified e-reader or glorified touchscreen smartphone. So is 2010 going to be the year of the tablet PC? We will look at three of the tablet PCs that were launched at CES 2010 which created a lot of buzz.

The Adam has been developed by an India based startup called Notion Ink comprising six IITians and an MBA. On first glance it looks like a widescreen version of the iPod touch. It's based on the nVidia Tegra T20 chipset and supports 1080p Full HD video playback, has integrated Wi-Fi, Bluetooth and UMTS/HSDPA and an innovative Pixel Qi transflective display. It works on the Android UI. And the user gets all this for around US $300 (Rs 15,000) Although most of the products were on the higher end of the price spectrum, Adam can be had under Rs. 15,000. So will this be a game changer in the tablet PC market. Lenovo's Ideapad UI touchscreen is a concept that turned around many heads at CES 2010 due to its unique form factor, which works even when detached. It is a hybrid in the sense that it works as a laptop and also as a standalone tablet when the 11.6 inch screen is separated. As a laptop it runs on a Core 2 Duo CULV processor with Windows 7 and has a 128 GB SSD drive. But when the display is detached, it becomes a stand-alone Linux tablet PC with a 1 GHz Snapdragon ARM processor having 16 GB flash memory. These features come at a hefty price of around US $1,000.

ICD showcased the 15.6-inch Vega and a 7-inch Ultra. The Vega has a 1366 x 768 resistive touchscreen working on a 1 GHz nVidia Tegra T20 chipset like the Adam. It comes with a 32GB SSD and the connectivity options range from Wi-Fi, Bluetooth with optional 3G and HDMI, a device that is market ready.

Lenovo Ideapad UI, a netbook-tablet hybrid

For the Tablet form factor to be accepted, there are two schools of thought. We have convergence evangelists, for whom smartphone with internet capability is the ultimate device. But others feel that the limited screen size of a phone seriously hampers the whole user experience when dealing with media playback. So a Tablet is a device that tends to bridge that gap of portability and user experience. With Apple slated to announce its iSlate, it looks like 2010 is set to be the year of the tablets.

Netbooks get a performance boost

Netbooks are meant for basic computing tasks but with Intel announcing the Atom N450 Pine Trail platform for netbooks and nettops the performance bar has been raised. With integrated graphics and memory controller on the processor, netbook users can expect a richer multimedia experience. Keeping this in mind we take a look at the interesting Netbooks launched at CES 2010.

Extremely low power consumption seemed to be the USP of many netbooks thanks to the Pine Trail platform. Toshiba Mini NB305 is loaded with an Intel Atom N450 1.66 GHz, 1GB of RAM, 250GB of HDD. It has a 10.1-inch TruBrite LED backlit display with 1024×600 pixel resolution. It promises an 11-hour battery life and has a 6 cell battery.

Samsung's N series of netbooks namely N210 and N220 offer battery lives of 12 hours whereas N150 and NB30 reach 8.5 hours and 11 hours respectively. They also offer support for 720p graphics. Each of them have a 10.1 inch screen and it features Easy Resolution Manager, which adjusts the screen resolution based

Samsung debuts IceTouch, a PMP with a transparent screen d The screen of the Lenovo Ideapad U1 works as a separate tablet d Microsoft says Linux won't offer quality

LCD screens on headphones

Vizio made its foray into the headphone market with a pair of Bluetooth headphones with an LCD screen on each earpiece that displays album art and other images

Netbooks go a little retro

Acer and Gateway announced netbooks with optical drives bridging the gap between netbooks and notebooks

MSI's Gx740 offers surround sound in Netbooks

GX640 and GX740 are powered by i5 processor and features the ATI radeon HD directx 11 supporting video card. The Gx740 has five speakers for what MSI calls "The ultimate 3D sound experience in notebooks." They both will start retailing in UK in 2010 and will have a price tag of £999. Dell also showed its 11 inch alienware notebook that will cost less than $1000. It has nVidia's GT335M graphics and is capable of running Crysis at 50 FPS. It has a battery life of 2 hours in gaming mode, although it goes up when the game runs at lower levels. Sony also revealed its Vaio F series notebook which will cater to both home cinema and powerful office users. It has a slick black chassis and a Full HD 16.4 inch display. It runs on Windows 7 home premium. Dell also wowed the crowd with the demonstration of its OLED notebook. The Studio XPS has an OLED display with a depth of just 2mm. It has a pretty impressive contrast of 10,000:1. HP also displayed a concept notebook running Android with a Qualcomm processor and full 3G support.

Netbook purchases have seen a steady rise in 2009 and this growth is bound to continue with more performance being packed in. With tablet PCs about to make an entry in the consumer market, the battle for portable computing is just going to heat up.

on the application running on your system.

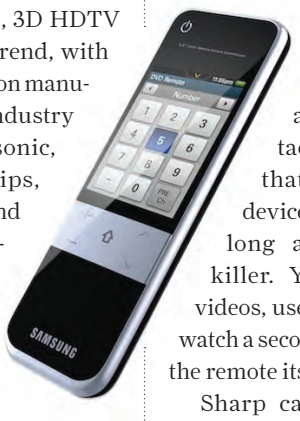
HP Mini 5102 went a step further in the netbook segment by coming out with a touch-enabled netbook. With features like face recognition for logging onto windows and multi touch sensor, HP Mini has raised the bar for netbooks. It comes with a four-cell or a six-cell battery, the latter can last up to 10 hours.

ATI also revealed the much awaited range of its Directx 11 supporting notebook graphic cards. The entire announced range of laptop graphic cards include ATI Mobility Radeon HD 5800, ATI Mobility Radeon HD 5700, ATI Mobility Radeon HD 5600 and ATI Mobility Radeon HD 5400 series graphics. MSI unveiled notebooks based on the Intel Calpella platform. The C-series and G-series range of laptops use Core i5 processors. MSI's

Television sets to get a dimensional lift soon

Over the past year, 3D has been slowly gaining ground as a home theatre experience. Concert videos of U2 and Miley Cyrus were released in 3D, and the year ended with the release of Avatar. At CES, 3D HDTV was dominating trend, with the biggest television manufacturers in the industry including Panasonic, LG, Sony, Philips, Vizio, Samsung and Toshiba, all showcasing 3D HDTV products.

The definite showstealers amongst these was Panasonic's 158 Inch plasma behemoth, a device that can churn out video at 4K resolution. 1080p resolution is 1K, and 4K is the standard at which the best cameras in the media industry record, which is basically what you see in theatres. The only heavier format around is IMAX. This of course, put's a lot of pressure on the consumer in terms of getting together the resources necessary to feed this monster. If you got yourself a Blu-Ray player already, there's bad news for being an early adapter, as you will need ports on it which are in the new HDMI 1.4 standard, something that supports the 3D HDTV Blu-Ray format. 3D Blu-Ray also means that whatever device you are using as a source has to output twice the amount of image information in the same amount of time, as there is a different image for each eye. Nonetheless, a few of the 3D HDTVs showcased at CES are market ready. Samsung's wafer thin (1/3rd of an inch) LED9000 was also quite a spectacle. The remote that controls this device may just be the long awaited iPhone killer. You can stream videos, use Wi-Fi, and even watch a secondary channel on the remote itself.



The LED9000 remote

Sharp came out with a stunner in the form of three Aquos LED LCD TVs, sets that uses four basic pixels instead of the standard three. A yellow pixel has been thrown into the array, to give a better colour representation. Sony had showcased 3D models in CES 2009 itself, and some of the sets in the Bravia range is already 3D ready. The models showcased in the 2010 exhibit used an OLED screen. Sony announced that they would tie in with content providers such as Discovery channel for

Panasonic's 3D HD camcorder

for mobile devices ◆ PrintShop sees a new version after more than 20 years ◆ Asus announced the flamboyant Bang & Olufsen-designed ICEpower notebook ◆ The AR. DRONE

High Bandwidth Routers

D-link announced two new Wi-Fi routers, the Touch DIR-865 is a true dual band router with throughput of upto 450 Mbps while the Wireless N Pocket Router minimobile router is for people on the go

delivering 3D content to these screens. DirectTV and Foxtel, are just two providers reportedly getting ready to start broadcasting 3D in the United States as early as next year.

For all the movies that you love and were never made in 3D, the converting boxes that sprouted at CES can come to your rescue. JVC and Toshiba both showcased mechanisms through which a normal video stream could be converted to 3D. This practically solves the problem of 3D content creation, but how well this works across a range of movies remains to be seen. We wonder what these boxes would do with something like "The Lion King". Some media companies can probably do a better conversion at their labs, then release the content on DVDs, which is something that Sony announced it would get into. Sony also said that they could put a patch in the PS3 firmware that would make the console ready for 3D gaming, at 1080p resolution at that. That is double the output of the device in the same time, which is a pretty tall claim. LG rolled out their Optoma range of projectors, which is something for the home cinema enthusiasts who do not prefer screens. Unlike previous 3D projectors, these ones source the image information from the same lens. All of these technologies use the shutter model for the glasses, which means that the screen and the glasses have to be synchronised. A few glassless 3D screens were around, but these were nowhere near as effective or market ready as the ones that did use the glasses. Panasonic seems to be really intent on bringing 3D to every home, as it even rolled out a range of HD 3D camcorders for home use. There are two lenses, and two memory storage devices to capture and record the streams. Panasonic will start taking orders for these from April.

Samsung's ebook reader

Kindle gets some competition

Though not a very popular category, it also had its share of limelight in this CES. It was started by Samsung which unveiled two new E-book readers with a 6 inch and a 10 inch display. Both of them ship with a stylus to scribble on the device while you read it. Sony's had an entire line-up of e-book readers, some of them with touchscreens and a downloadable applications. Spring also showed some innovation by adding a second, coloured screen for web access, to its E-book reader. Plastic Logic also showed an E-book which was for "Mobile Professionals", known as the Que. This is still a category which has been dominated by the Amazon Kindle for long, and the entry of giants in this market benefits the consumer by competitive prices and greater variety.

Why it might not happen

- You cannot really relax in front of a television with those glasses on
- The frame of the Television restricts the effect of the 3D
- The novelty is not worth the investment
- Might work for gaming, but not for television
- The 3D experience can be nauseating to some

Home wireless explores new territories

One element common to all the major trends at CES this year, from 3D TVs, to tablets to the superphones, were the wireless capabilities of these devices. A range of wireless technologies have matured, with open frequency radio and Wi-Fi being the most used. Blu-tooth and infra red took a back seat, as they do not offer the bandwidth for some of the applications. Around our homes, and in our pockets, we interface with a number of devices, PMPs, cameras, netbooks, television, and even the GPS devices in our vehicles. Manufacturers have began to exploit the applications of wireless technologies only now, and we can expect to see a lot of these devices communicating to each other using invisible channels.

One buzzword that emerged was WHDI (Wireless Home Digital Interface), which is a network of communication through which devices such as PMPs, Camcorders, and Laptops can interface with the televisions and home theatre set ups in a home. LG, Westinghouse and Celeno, all television manufacturers, showcased a range of products that could catch video content in a wireless manner. Celeno's demo installation involved a common box through which media content was streamed to a number of television screens in and around the house. Almost everyone already owns an HDTV, which is why the real numbers were seen in devices that acted as middlemen between a source of video content, as in the internet or a HTPC, and the television. Belkin had a range of switches that could stream wireless content from say a laptop, to a small attachment to the television itself. These switches had USB ports as well, if that was necessary. Belkin was one of the few manufacturers that could support 1080p video streaming, the best that most of the rest could do was stream at either a 1080i resolution, or at 720p. Intel used a technology called WiDi (Wireless Display), to stream across HD content through laptops which used their core i5 and i7 processors. Roku, Boxee and Kula were all services that connected directly to the internet for video content, delivered in a range of ways. Mediaroom 2.0 by Microsoft let's you save multimedia, stream to televisions, transfer the content wirelessly to PMPs, and even access the content over the cloud if necessary. Cydle's Mobile TV i30 works the other way around by streaming television

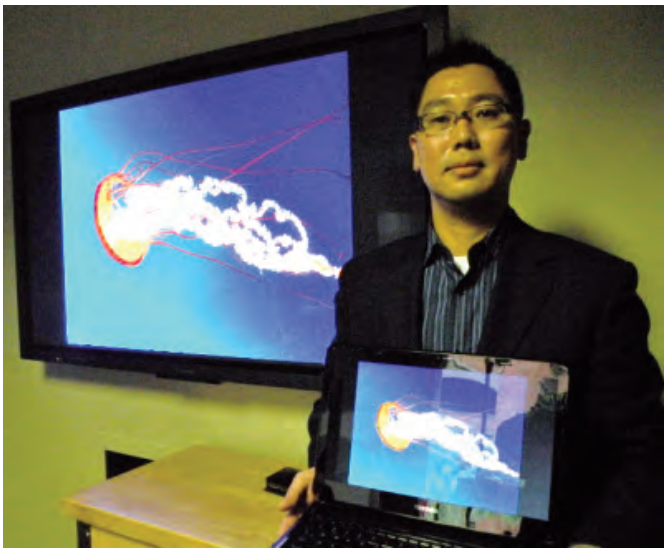
is a helicopter that has four blades (a quadricopter) and can be controlled by Wi-Fi from your iPod touch or the iPhone d RCA showed off their concept Airnergy capable of

Baby don't cry

A new iPhone application named 'Cry Trasnslator' developed by paediatricians claims to translate infants cry with 96 per cent accuracy

USB fanatics see this

Silex Technology has come out with an adapter that allows users to connect upto 15 USB devices using Gigabit ethernet



Toshiba showcases wireless HD streaming

content to a mobile phone over Wi-Fi. Most of the technology discussed so far, were ideas thrown around in the previous CES events, but never really implemented. Toshiba has already started shipping some of Intels WiDi laptops, but the best bit is wireless spreading to some unconventional devices, for some pretty spectacular applications.

Right on top has to be Canon's incorporation of wireless technology into its top end EOS range of dSLR cameras. The capabilities of these wireless enabled cameras are pretty useful for both the enthusiast and the professional. Photos at events can be remotely saved to a computer, instead of locally, which allows for faster printing and distribution. In a studio environment, up to 10 cameras can be synced and fired together, allowing for precise multiple-angle shots. When paired with GPS devices, the location can be written into the EXIF data of the image while it is being saved.

Verizon was at the forefront of utilising wireless technologies on a larger scale. Applications included surveillance from a number of cameras, gaming, and converting individual mobile phones into Wi-Fi hotspots for internet access. The Palm Pre Plus and the Palm Pixi Plus, are two market ready phones that can be used as Wi-Fi hotspots over Verizon's 3G network. The logic of receivers for televisions applies to portable devices as well, and the innovation has come through the memory sticks used in devices such as mobile phones, PMPs and cameras. Eye-Fi, released some time before the CES, received the international CES innovations design and engineering award. The cards are regular memory sticks, which also allow you to transfer data to computers, or upload them directly to the internet. Sony's TransferJet technology works on similar lines that transfers data wirelessly, as soon as the host computer is detected on a network.

Wireless Keywords

- **Amimon:** Developer of HD wireless streaming technology. Large companies such as LG use Amimon modules for their devices.
- **WHDI:** A wireless high definition standard developed by a consortium including Amimon, Hitachi, Motorola, Samsung, Sharp, Sony and LG Electronics.
- **WiDi:** Intel's wireless solution for viewing HD content from a PC or a laptop on television, involves a receiver box connected to the HDTV.
- **1080p:** Pure 1080 lines of image information, also known as True HD, is similar to the industry standard 2K resolution for recording, the entire frame is sent as once, which requires a higher bandwidth when it comes to wireless transmission.
- **1080i:** Interlaced 1080 lines of image information, the image is sent in parts over wireless, requiring a lesser bandwidth. 720p

Green Tech at CES

Although the Copenhagen climate meet didn't do anything to control environment degradation, our favourite companies look all set to embrace environment-friendly and energy-efficient devices. This year has a showed us quite some "Green products" like the Sony Ericsson Hazel phone, Dell OLED laptops, the next generation of Tegra processor, that has 8 independent processors and delivers a 10% faster performance than a smart phone and consumes 20% less energy than a PC, among many others. In fact, this CES has a dedicated Sustainable Planet Area which houses more than 30 exhibitors. This area provides a chance for exhibitors to display world-changing technologies which benefit the environment in any way. This environment-centric approach may be partially due to a survey conducted by Samsung, which says that 45 per cent consumers are more likely to buy products from energy efficient companies (Though 60 per cent of them said that it was due to lesser strain on their wallets and had nothing to do with environment concern). Direct Energy launched a touch screen product called Home Energy Master, which has a dashboard that tells which appliances are using electricity, when and how much is it costing them. It is also programmable to allow user to switch off appliances during peak times, and has support for internet access for social networking, movies and music. The device will be tested late this year, and promises consumers to bring down their monthly bill by 25 per cent.

CES 2011 Forecast

- **Glassless 3D:** The next step in the evolution of 3D television, is glassless 3DHDTV. While this might seem a pipe dream right now, adoption will be slow without this important factor.
- **Motion Control:** Gaming controllers will become more natural, with Microsoft's Natal coming in, and expect some innovation in this area.
- **Twitter and Facebook:** Hardware integration for Web 2.0 services will increase exponentially, with the content and interaction available on multiple screens.
- **Augumented Reality:** We have talked about the Sixth Sense between these pages, expect more of such technology to show up at CES 2011. This could entirely be through innovations only at the software level.
- **Flash memory:** We can expect a drastic increase in flash storage technology, and it's reliability.
- **Wireless power:** Some prototype wireless chargers were showcased this year. Devices can probably charge up while they surf.

converting energy in transmitted Wi-Fi signals to DC power Twitter launches location based trending topics, which is available as a beta feature for some select locations

Let's GupShup

Since 2004, the founders of SMS GupShup had been struggling to find the right product for the mobile platform

Beerud Sheth, Founder.

Pooja Kothari
readersletters@thinkdigit.com

Post launch, there was no money for big marketing gimmicks. The team did not even have a winning business model. However, this unique product did its own talking. It got mobile users hooked. The result – in less than two years, GupShup has a user base of 15 million and some cool funding in its kitty.

Rajasthan Royals, one of the eight teams in the IPL cricket league, wanted to build a community around its fans for the upcoming season. So, in January, it signed up with SMS GupShup to create RR, a group for its fans. Those who join this group get to stay in touch with the team, interact with the players, and even vote for its cheerleaders; all this through a mobile phone.

Similarly, when not-for-profit organisation PRS India wanted to use the mobile platform to launch its "No criminals in politics" campaign, it logged on to GupShup. Subscribers to its group could send their pin codes and get information about local MPs with a criminal past.

Not to be left behind, corporate India too is waking up to the potential of this new networking tool. Unique in its ability to deliver content "anytime, anywhere and to anyone", GupShup has also managed to attract firms such as Nokia, PVR Cinemas and Pepsi.

Its growing user base is testimony to the fact that the product has caught people's fancy. When it was launched in April 2007, GupShup had 100 users – mostly the family and friends of its founders, Beerud Sheth and Rakesh Mathur. "By December 2007, GupShup had a million users and was, at times, growing at 1 per cent a day," says Sheth.

Today, the service has more than 15 million users, of which nearly two-thirds are active on a monthly basis. It generates nearly 12-15 million messages a day. "That's 6-7 per cent of the entire SMS traffic in the country," says Chirag Jain, VP (India operations).

"Initially, we focused on the smartphone market. But as we spent a couple of years developing that product, we realised that the market was not as developed and the device capabilities were limited," says Sheth. But basic phones were the preferred by the masses. "We turned our focus to figuring out an interesting application for lower-end devices," adds Sheth.

What you can do on GupShup

- Start/join a group
- Invite your friends to join a group
- Build a community
- Play teenpatti and another card game
- Develop and launch a card application
- Solicit feedback
- Hold an opinion poll or survey
- Start a loyalty programme
- Send an update
- Ask a program

That's how GupShup came about. In late 2006, the prototype of SMS GupShup was tested at an IIT alumni event. The participants were sent a message, which required them to share the name of the campus they attended and the year of graduation. The response was to be sent in a specific format. GupShup would then tell them who else from their batch was in the gathering.

These were the brightest minds in the country and they didn't just follow the format. "We got replies of all sorts, instead of getting the format we had asked for," recalls Sheth. The team was stumped but learnt an important lesson: keep things simple and don't ask too many questions. Now using their mobile phones – and thumbs – alone, users can do everything: from creating a group to inviting others to join, joining an existing group, and even leaving a group. Once created, the group is a social networking platform for its members where they can share all sorts of content.

The only problem was that GupShup didn't have much money to spend on advertising. The company had to upgrade its infrastructure to carry more traffic and also pay telecom carriers for every SMS sent by them. Revenue was scarce, so word-of-mouth was the only way to grow.

Luckily, their business model made sense to two venture capital firms. Last September, GupShup received $11 million in funding – the ultimate dose of confidence in their business plan. And they intend to invest more in sales and marketing, as well as in the product. They also hope to develop a revenue stream. "The opportunities for growth are enormous. We have six lakh communities across categories. We realise that every brand can have its own community on our platform", asserts Sheth.

In message ads, paid inteactive services, and leasing their infrastructure to firms – are their main revenue streams today. "We hope to break even this year," adds Sheth, confidently. "Monetisation takes time on a new medium. Even Google, despite its rapid growth, took a few years to figure out what its business model should be."

For him, getting a loyal user base is the harder part. And he's cracking that everyday: one SMS at a time.

Made to fit

The search for a tailored netbook OS ends here...

Rossi Fernandes
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So you've bought a brand new netbook and you've got Windows XP Home on it. If you chose a really cheap netbook, you would have one with Linux or maybe no operating system at all. There have to be a few tweaks and modifications before that OS can be deemed usable. Netbooks were designed for people using the internet for browsing, chatting, downloading, etc. Quite a few distributions have come up in the last few months with cloud computing kept in mind. They've also been designed to keep computing really simple. Google's Chrome OS is one of the first to approach computing this way.

These pages should introduce you to some of the best netbook operating systems available for free on the internet. Obviously, you wouldn't want to buy a cheap little netbook and then spend a bomb on an operating system that isn't properly designed to be used. Google's Chrome OS isn't fully ready as an OS for download. Some of the distributions have been put on this month's DVDs and some in the past.

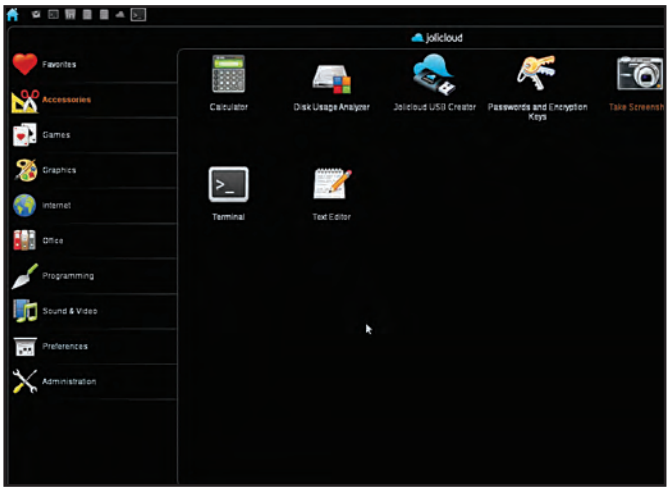
Jolicloud

www.jolicloud.com

Jolicloud is one of the more flamboyant Linux-powered netbook operating systems around. It's definitely not lightweight or compact at around 600MB. Something about the interface makes it look very much like a very sleek phone or PDA interface - fine lines, colourful icons on a black background on a compact netbook screen.

The OS can be run as a Live OS on a USB drive and also can be installed easily on a flash drive. Performance once installed is decent – bootup and loading of the user interface is slow though. The great thing about Jolicloud is that it's not just a cloud-based OS. Applications are available locally and many more can be downloaded with its built-in installer that downloads programs for you. Web-based addons are available as well – the number of applications keeps on increasing. With these apps, you can now open up your Twitter and Facebook accounts like you would say, Google Talk.

The end result is a very interactive, yet very usable computing experience. The interface and way of doing things is simple for anyone to get used to. Data is still stored locally.



Ubuntu Netbook Remix

www.canonical.com/projects/ubuntu/unr

When you first start up Ubuntu Netbook Remix, it's almost like Ubuntu's desktop but with the same layout as some of the other netbook distros around. The panels contain most of what makes up the desktop Ubuntu distribution. The default Ubuntu theme is also maintained. It feels as light or heavy as the default desktop distribution as well. Installation steps are also very similar.

When you get it running, you'll notice many more settings you can fool around with. Unlike Jolicloud or some of the other netbook operating systems, Ubuntu Netbook Remix doesn't hide away all the settings dialog boxes – it simply puts them in a format that netbook distributions have come to use.

This is another distribution that allows saving and accessing files stored on a local drive than using the cloud. There is however, Cloud One that you can register for. Cloud One is Ubuntu's online web space that can be used to sync all of your important documents. This has been integrated well with UNR. Being Ubuntu, you have loads of applications from the repository that can be installed. Oneof the hiccups we noticed was the short period of time where the application starting runs in a window mode and then maximizes.

Easy Peasy (www.geteasypeasy.com) is another Linux distribution based on Ubuntu. It's almost identical to Ubuntu Netbook Remix but with a different theme. There are a few additional packages in comparison to other operating systems. It comes with Skype and Picasa for example.

Moblin

www.moblin.com

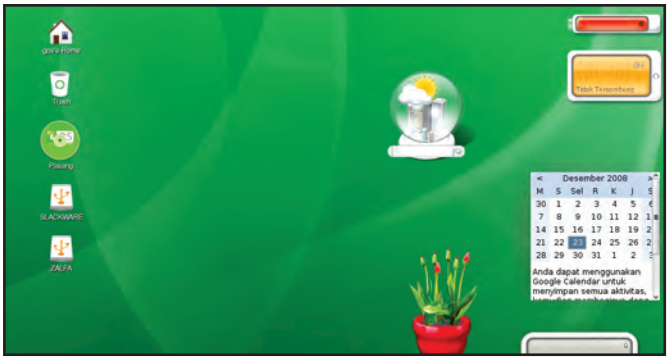
Unlike most of the other distributions, Intel is the one that backed the Moblin project. After all, it was Intel's Atom that drove the netbook phenomenon. While a lot of people were excited about Moblin at first because it was one of the first of its kind, it's no longer the case anymore. Many more alternatives are available.

Still, Moblin puts up a very good fight. For those who haven't seen it yet, it's clearly one of the most unique looking operating systems and it has no resemblance to Linux whatsoever. Installation to a flash drive is simple and once you boot into the OS, it's all very quick.

A simple panel at the top ensure you have all the width of the screen to use. The panel gives you access to the applications, settings and connectivity options. It autohides, letting you use the entire screen as much as possible. Netbook users know all too well that there isn't a lot of it.

It's also good to see support for most netbooks – for example, all the shortcuts the EeePC 1000H worked and also the multitouch functionality! Once online, installation of applications also is simple – simply press the Install button next to the application you want. With your Twitter and last.fm accounts setup right, your dashboard shows updates from all your friends - it's a very nice experience.

gOS



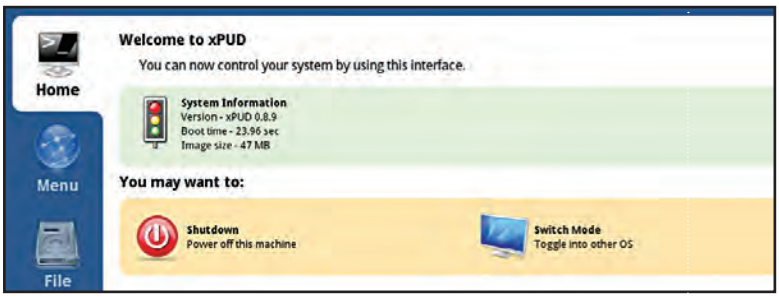
www.thinkgos.com

gOS by itself looks like any other Linux distribution. The one difference is the dock below – similar to the one found on OS X. All of the applications are put into shelves within this panel. There are fewer desktop applications and a lot of emphasis is on web based content. A community developed application called Netbook Launcher allows users to transform the gOS interface into the similar layout found on Ubuntu Netbook Remix. gOS is more of a cloud-computing OS than the rest. For those with speedy connections, it's not a hurdle. For those with limited bandwidth, surely, the rest of the distributions are worth looking at.

Conclusion

When you keep everything in mind, there is no doubt that Jolicloud and Moblin are some of the best netbook operating systems around. Ubuntu Netbook Remix feels like Ubuntu in Jolicloud clothes and it's the same story with Easy Peasy as well. If performance and simplicity is what you want, Xpud is the netbook OS to use. Honestly though, they're all good fun to use and I recommend everyone with a netbook to give them all a try. All you need is a flash drive and the disc ISOs. Look up this month and some of our previous DVDs to find them.

Xpud



www.xpud.org

Xpud, a 64MB distro is the featherweight champion for netbooks or even desktops for that matter. The distro loads quickly into a simple four menu interface. The menus are basic but the size and space used up is unnecessary.

The settings menu contains the very basic configuration programs. Data can also be backed up and recovered from it. It's kept very minimal and you could possibly have problem with drivers on unusual hardware. The main menu is for programs and it too has very few programs that come preinstalled owing to its low download size. Multitasking between applications is a little difficult as well.

The number of downloadable applications isn't very impressive either. This is then a very minimalist OS for those who are looking to browse, chat and maybe watch a few videos on YouTube every now and then. It isn't as slick as say Jodicloud.

Two-in-one
Fly Circle, a dual-SIM handset with querty keyboard, 2.2 inch QVGA display wieghing 104 grams. now avaible in India

Google squared
A new service which will help in answering your search queries by highlighting the search results

Google Nexus One

A Superphone without multitouch

There is a lot of hype around the Nexus One. Does it live up to expectations?

The much awaited and speculated Google Phone finally launched on January 4th, 2010. No phone in recent public memory had generated so much hype as the Nexus One managed to create. Nexus One was the trending topic on the micro-blogging site twitter since early December. With Google entering the phone market, be prepared to see some cutting edge technology in the cellphone. In fact Google seems to be trying to create a new product category. The Nexus One is being touted as a Superphone. But what exactly does a superphone mean, and is it really different from the Smartphone?

A Google search on Superphone revealed results with Nexus One in the same line, and the definition goes something like: a phone which has increased computing power and a more evolved platform. According to Google's claim, the Nexus One is as powerful as the laptop of an older era. Quite a claim we must say. As of now Superphone just seems like another addition to the telecom jargon.

Nexus One looks like any other HTC touch phone but more like a flattened and curvy hero. A zippy 1GHz Snapdragon CPU from Qualcomm powers the phone – a first in the Android world and being a Google product Android Eclair is the operating system. It has a large 3.7 inch AMOLED display which has a capacitive touch sensor. The Nexus One come with a lot of bells and whistles. One such feature is the Live wallpapers – basically, wallpapers that move. Some of the pre loaded ones are quite cool actually. There's one that has lines and squiggles running all over the screen, which respond to touch. Another shows a slow swirling image of a galaxy, and others that show wave form visualisation of the current track being played. Not quite the functional feature, but still fun while the novelty remains. If it functions the way it should, then one of the better features is voice recognition, so the user can call out his text message, giving rest to the thumbs.

As far as connectivity goes, Nexus packs in a punch. It supports UMTS Band 1/4/8, HSDPA 7.2 MBps, HSUPA 2 MBps, GSM/EDGE, WiFi, AGPS and Bluetooth. It has 512MB of both RAM and ROM. A 4GB Micro SD card is bundled along with it and expandable memory upto 32 GB.

One really shocking thing amidst all these features is the absence of multi-touch. If the Nexus has to compete with the iPhone, this factor can really make all the difference. For the tall claims of being a Superphone, the absence of multi-touch will sorely be felt. Imagine how annoying it will be if you have zoom in and out of Google Maps, and no pinch gestures will work. And of course you can forget about multi-touch games. The phone features a 5 MP camera with autofocus, and LED flash, and can capture video at up to 720x480 resolution (DVD quality), which is quite a decent addition to the feature set.

But for the hype surrounding its launch, the Nexus One has not really cracked the sales numbers. According to Flurry, an analytics company, Nexus One sold just 20,000 units in its first week. The Motorola Droid outsold Nexus One by more than 12 times whereas Apple iPhone 3GS had 80 times the sales of Nexus One. Did it fail to deliver on the insane buzz that preceded its launch or is the Nexus One going to be a dark horse and capture the market in the coming months? And by how much will you be poorer to have this phone in your pocket? The dollar converted price is a sweet Rs 24,000 but by the time the poor guy reaches our shores it'll probably be in the vicinity of Rs. 32,000. Only time will tell.

Sony Ericsson Vivaz

HD video capturing on your cellphone

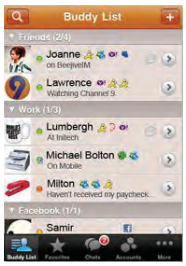
The Sony Ericsson phone that was formerly called Kuraraz has been officially named Vivaz and will launch by the end of the first quarter of 2010. It features an 8.1 MP camera, works on a Symbian S60 operating system with a user interface which is quite similar to Satio. Vivaz is optimized for HD video capturing. Though it

LePhone
Lenovo's Andorid powered smartphone will be available in a few months time

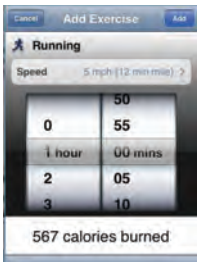
YouTube goes commercial
YouTube to start charging for online content starting with $5 for indie movies from Sundance Film Festival.

We bring you the world's most popular apps for the world's four most popular platforms

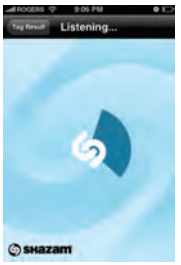
iPhone



BeeJive 3.0
Its a multi client messaging service that makes use of the push notification feature of iPhone, allowing you to keep in touch with your IM friends



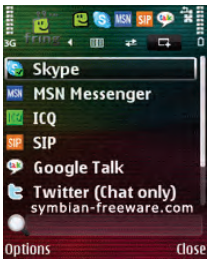
LoseIt
A popular fitness app that allows you to keep track of your calorie intake, set weight loss goals and a means to track them



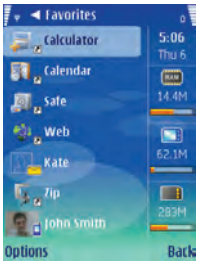
Shazam
A music recognition app that is quite handy while listening to radio or any music source

Symbian

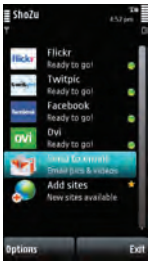
Fring
One of the most popular VOIP and data chat app which also supports Twitter. Besides, you can log into most chat clients



Handy TaskMan
A mobile version of the Windows Task Manager, this app lets you to check out apps running in the background and close them

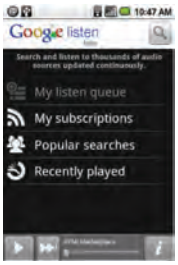


ShoZu
It lets you tag, categorize, and upload your media to these popular services like Flickr and YouTubes in the background



Android

Ringdroid
An app that allows you to make your own ringtones by editing music clips while on the go



Google Listen
Allows you to create your personalised podcast magazine and also lets you save your favourite episodes to the phone's memory card

WaveSecure
Its an innovative security app that provides complete data protection and also has a remote lock down and data backup feature in case of lost phones.

Windows Mobile

Bejeweled
The popular online game on your cellphone coming in the Relax mode for easy games and Frantic mode for timed games

Journal Bar
An app that puts up details like weather, stocks, news based on your location onto your screen

Viigo
Free, fast and easy to use RSS reader for your mobile which provides instant access to blog, news and other feeds

may not necessarily be the first, since reportedly some phones are capable of 720p capture.

The phone belongs to the communication and entertainment category of smartphones from Sony Ericsson that aims to bring together CyberShot and Walkman lines in one phone. Vivaz comes in a curvy form factor in four colours Moon Silver, Cosmic Black, Galaxy Blue and Venus Ruby with a 3.2 inch WVGA display. It has a built-in microSD card slot with expandable 75MB of internal memory.

The screen resolution of the phone is 360 x 640 which is not quite HD yet and is still less than the Nexus one. All in all this is a phone to watch.

Mobile Digital TV on the horizon

The dream of being able to watch digital TV on a mobile phone or a portable device has been pretty much a dream for a long time. But going by one of the more interesting announcements at CES this time, it seems DTV is going to be a reality sooner than you think. The Mobile DTV standard provides for an IP stream tunneled into a broadcast channel. That IP stream will primarily carry MPEG-4 AVC video at 240x416 resolution with HE-AAC audio. A few tests done in an initial test, were able to broadcast upto 30 miles from a tower. Now the technology is mature enough for implementation.

Microsoft plays advocate
Worried about the future of cloud computing, Microsoft appeals US government to step in, enact laws

Firefox personified
Firefox 3.6 released, a good six months after 3.5, introduces light weight skinning with Personas, developers rejoice too

Google's red shift

In a blog post with many implications, Google announced plans to review their situation in China

On the 12th of January this year, Google put up a rather long and startling blog post about how and why they plan to review their business operations in China. The post announced that Google has been the victim of a highly sophisticated and targeted attack on its corporate infrastructure originating from China that resulted in the theft of intellectual property from Google. But further investigations revealed that the attack was not so much to steal intellectual property assets but to gain access to the Gmail accounts of Chinese human rights activists. Google also announced that at least twenty other large companies from a wide range of businesses including the internet, finance, technology, media and chemical sectors have been similarly targeted. The attack on Google resulted in only two email accounts being compromised. While the figure seems hard to believe, this whole business of human rights activists being targeted, puts a whole new spin on the matter. Google goes on to say that its decision to review its position in China is because of a larger issue at hand – China's censorship and restrictive stance on free speech on the internet. In line with this, Google announced that it will no longer censor results on Google.cn – the Chinese version of the popular search engine. As we noted on thinkdigit.com, perhaps Google has had enough of China's interference with the beautiful anarchy that is the internet. Enough sacrifices have been made to the freedom of information.

In an effort to speculate on the motives and implications of this announcement, bloggers all over the world are going on about all sorts of things. From how this is a blow to communism to how Google is the only humanitarian corporation in the world. Is the China pull out a retaliation to the attack or is there something deeper? Google.cn has been operational since 2006, albeit adhering to censorship laws that the country enforced on the company. Even back then, Google had announced "We will carefully monitor conditions in China, including new laws and other restrictions on our services. If we determine that we are unable to achieve the objectives outlined we will not hesitate to reconsider our approach to China." Looks like that time has finally come after four long years of pandering to Chinese censorship.

One of the first things to understand is that Google has nowhere mentioned for a certainty that they will pull out of China. This is may merely be a threat. The official blog post only suggests that they will review the situation in cooperation with government authorities. Whether China calls this a bluff, is yet to be seen. What will happen if China doesn't blink? Is this decision truly driven by ethical compulsions? Or does business have something to do with it. Lets look at some of the implications. China is one of the few markets where Google is not numero uno. The reigning king of search in the land of dragons and emperors is Baidu, which commands a 60 per cent share as compared to Google's 30 per cent. (Baidu also was incidentally attacked – by the Iranian cyber army). Although 30 per cent is not bird feed, it still seems a revenue worth loosing, when faced with intrusion attacks, especially when more than half of Google's revenues come from outside the US.

There is another angle though that is hardly being explored. Some time ago Yahoo! had come under a lot of international humanitarian flack for handing over an email sent by a Chinese journalist to a pro-democracy web site. The mail contained only guidelines on how the Chinese govt wanted journalists to cover the 15th anniversary of the Tiananmen Square crackdown. He was charged with disclosing state secrets and is serving a 10 year sentence. If a similar situation happens wherein Google is not able to protect sensitive information, they will face the same public ire. Maybe Google doesn't want this kind of blood on its hands. As of now Google continues to censor results in China, and has expressed "we remain quite committed to being there".

Love Digit? Like Facebook?
Become a Digit fan on Facebook and win the hottest movies of 2009. Head to www.thinkdigit.com/d/fan to find out how

Sign out forever

Suicide is not so bad when it comes to a virtual suicide. In fact this web service – suicidemachine.org - couldn't have made such a morbid subject funnier. Their logic is pretty simple – people have started substituting their online lives with their real ones, and the creators of this website don't like the way things are going. The Web 2.0 suicide machine allows you to completely and irreversibly delete your online presence. Yes it's real and it's forever. Once you sign up and activate it, the web site will run scripts that will first change the password to your social networks and will physically unfriend all contacts and physically delete all the tweets you've ever made. The web site has a funny video promo about how a middle aged man opted to delete his online persona and now spends more time with real friends and family. Seems like a rather good alternative than poking and prodding people you don't really care about right? Well maybe it is. So far about 1,300 people have opted for this service – a drop in the pond considering more than 200 million people are still on Facebook obsessing over that special someone's profile or commenting on inane status messages. Still Facebook cant be too happy with this right? You bet. They blocked the sites

Brain and brawn - Lenovo extends it's Thinkpad range with the Thinkpad Edge which has chic looks while retaining the ruggedness and utility d Virgin mobile made its

Google's safety recommendations

As President Obama recently stated, cyber security is a shared responsibility. Go to this link to read Google's cyber security awareness post: http://www.thinkdigit.com/d/ggr/

IP address for a while and even sent suicidemachine.org a legal notice. "Cease and Desist violating Facebook's statement of rights and responsibilities" it says.

So what do you do after you've done killing yourself online? The website has an FAQ with the answer:

"Try calling some friends, take a walk in a park or buy a bottle of wine and start enjoying your real life again. Some Social Suiciders reported that their lives have improved by an approximate average of

25%. Don't worry, if you feel empty right after you committed suicide. This is a normal reaction which will slowly fade away within the first 24-72 hours."

Of course we don't recommend taking this step, only because like real life, this too is irreversible. Yet it might perhaps be put to good use in certain situations. Say you want to get away from a cyberstalker or maybe you want a fresh start. It might actually be able to help you come back with a bang, in a new and improved version of yourself, especially on sites like twitter that don't really care about people registering with fake names.

IPL Live ! On a YouTube near you

Stuck at work or in a traffic jam or maybe in a different continent altogether and that fanatic cricket fan in you is kicking and screaming at the notion of missing out on a cricket match? Fret not, Google's to the rescue. In a first of its kind initiative, Google and IPL recently announced that YouTube will broadcast 60 matches over 45 days live in the 2010 IPL season through a dedicated channel – www.youtube.com/ipl. According to the contract, Google-owned YouTube shall have the exclusive rights to the online content for two years, with the two companies splitting the revenues from advertising and sponsorship. A fact worth noting is that the deal involves all the countries except the US. So, if you are a cricket fan in US, tough luck! This news comes in at a great time with the 3G auctions around the corner and increased proliferation of high speed wireless broadband connections. So now you can watch the IPL on the go on your mobile phones or netbooks without having to miss a single moment's cricket mania. Hope your boss is a cricket fan too.

Make your own identity

There are many websites, free as well paid that offer logo creation tools. One which we found particularly feature rich yet simple to use was www.logoease.com (pictured alongside). After a free sign up, you get access to their flash based utility. Browse through a categorised list of clip art images and work your way from there with drag and drop ease. It took us no more than 10 minutes to come up with a simple yet professional looking logo. If you're short of ideas, you can always take a peek at their catalogue. Once you are done designing, you can save and download a zip file which has the logo in different formats like jpeg, tif, png and eps with different resolutions.

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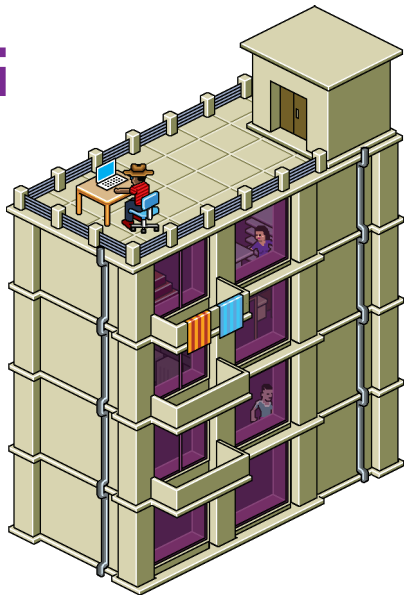
34 **Is your e-money safe?**
In this age of cyber crime and fraud, are you sure of your safety? Are you safer online or in a shopping mall?

38 **Invaders from outside**
How do you stay safe despite your exposure to harmful viruses out there?

INSECURE AIRWAVES

After the series of terror threats and attacks emerging out of unsecured wireless networks, it's high time we learnt our lessons. We take a look at the state of our society when it comes to secure technology



Nimish Sawant
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Wireless fidelity (Wi-Fi) penetration is growing by leaps and bounds with, not only business houses, but also a lot of residential users opting for this facility. As most households nowadays, have a laptop along with a desktop, it makes sense to have a Wi-Fi router within homes for flexible internet access. As with the internet, proliferation breeds vices. If the number of cyber crimes occuring in the country is any indication to go by, the possibility of unsecure Wi-Fi networks being compromised is also high.

Just a year ago, an American citizen, Kenneth Haywood, residing in Navi Mumbai didn't secure his Wi-Fi connection. The result — hackers accessed Mr Haywood's account to send a terror email. What followed made front page news in the city's dailies. Police personnel carried out mock Wi-Fi security checks. Awareness campaigns were launched to inform people to secure their Wi-Fi networks. But till today that message has somehow not really penetrated. The next victim is just around the corner. Unsecure Wi-Fi networks can make you lose much more than just your internet bandwidth and money.

Digit Wi-Fi security test

We went to societies in and around our office to check for open unsecure networks. We used a Gateway netbook for the test which has an internal Wi-Fi network adapter. We did not hack into any account by second guessing the user name / passwords or used any tools to gain entry into a Wi-Fi hotspot. The test was very basic where we just used our netbook to check for any open unsecure network. Once an unlocked network was recognised, we opened it. After surfing the web for some time to check if the security of the network could be breached, we disconnected.

As expected we came across two open wireless networks having speeds upto 54Mbps. These networks had absolutely no security. They showed up as unsecured networks when the wireless connections page was refreshed. So many people are still ignorant of security regarding their wireless networks. A study conducted by the Data Security Council of India and Deloitte states that over 80 per cent of the wireless networks across the country (out of the 35,000 networks tested) are vulnerable to attacks.

A hotspot close to our office where we found an open, unprotected Wi-Fi network

Encryption woes

Data transfer over wireless networks is in the air and not confined to any wire. Due to this it is easy for a hacker to snoop into the information that is being transferred over the wireless network. To prevent this there is a need to encrypt the data in a way that it can only be deciphered by someone who has the decryption key.

Now the wireless routers have two kinds of encryption: Wired Equivalent Privacy (WEP) and Wi-Fi Protected Access (WPA). WEP is considered to be a weak encryption mechanism as it has many loopholes. It uses 64-bit or 128-bit security keys to encrypt data of which 24-bits are called Initialisation Vector (IV hereon). Since 24-bits give only 16.7 million variations, it is comparitively easier to decode the keys. Also the possibility of using the same IV key more than once is high making the system vulnerable to hack attacks.

WPA on the other hand is considered much safer than WEP because it has a 48-bit IV which gives over 500 trillion variations, which is very difficult to crack. Also the IV keys are better

Common Wi-Fi Hacking software

NetStumbler
A Windows-based tool used to locate open wireless networks

Kismet
Displays SSIDs that are not broadcasted

Airsnort
Cracks WEP encryption keys

Cowpatty
Cracks WPA- pre-shared key

Wireshark
Sniffs data transferred over a wireless network

protected and never re used. WPA2 is the advanced version of WPA. Since WPA is a newer technology it is possible that many routers may not support it, so the user needs to do a firmware update.

WPA Key can be enabled by going in the Wireless Setup tab and selecting WPA Security option. Using a Passphrase which is an alphanumeric keyword, we can generate one or more WPA keys. The passphrase should be greater than 16 alphanumeric characters and should only be known to the administrator.

Wi-Fi Jargon

Encryption
Its the process of scrambling legitimate information using algorithms called ciphers, such that the information can be decrypted only by someone or something that has the encryption key.

Service Set Identifier (SSID)
It is a name that identifies a particular 802.11 wireless LAN network. For the client machine to connect to the network its SSID should match with that of the router.

WarDriving
Its the act of locating and logging onto wireless access points from a moving vehicle using a laptop or a PDA or a cell phone.

Plugging the loopholes

The hackers take advantage of the many loopholes that users tend to overlook while securing their Wi-Fi networks. Configuring the security settings on your Wi-Fi router is time consuming.

Administrator password

All the routers are shipped with default factory settings which many users do not change, while connecting to the internet. These default settings are commonly known, as they are specific to manufacturers. The first thing you should do while setting the router is change the default username and administrator password, so that it is only known to you.

Enabling WEP or WPA Encryption

As discussed above, the need to scramble data while using a wireless network is paramount. You should activate the necessary encryption key. It is advisable to choose WPA or WPA2 encryption rather than WEP if your router supports it. To configure the WPA encryption you have to enter a unique passphrase.

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Broadcasting SSID

SSIDs are public names of wireless networks. All the client machines communicate within a network using similiar SSIDs. Router manufacturers generally give default SSIDs eg. Linksys router will have a default SSID 'Linksys'. A user should change this default SSID. Broadcasting SSID is a feature that is ideal for businesses and mobile hotspots where users move in and out of networks. For home broadcasting SSID may make the system vulnerable to attack if the router is not protected by a username and password.

MAC address filtering

Media Access Control (MAC) address is an identification for all the hardware connected to your network. In a home network where there are limited number of users it is better to find out the MAC addresses of all the machines connecting to the network (enter ipconfig/all in the command prompt to get the whole list) The administrator should then feed these numbers under the "permit only" tab in the Wireless Network Access tab. This will ensure that any system whose MAC address does not pass the filter, will not be able to access the network.

Positioning the router

The range of wireless routers may exceed the boundaries of your house, but its stength reduces with distance. It is deemed best to have the wireless router inside the house rather than on the window so that there is very little leakage.

Switching off the router

This may seem a very trivial thing to be included in this section. But many users just do not bother to switch off the router when its not being used for a long period of time.

What the law says?

We spoke to Karnika Seth, Attorney at Law and Chairperson - Cyber Laws Consulting Center on the subject. Here's what she had to say: "Under the IT Act 2000 there is no provision as such, to fine individuals who leave their Wi-Fi connections unsecure. But if a terrorist uses the open network to conduct his nefarious activities, then the owner may be called in for questioning. The user has to ensure that his connection is secure and should invest some time in securing the network. Leaving your Wi-Fi network open is analogous to leaving a signed chequebook unattended. Its vulnerable to misuse."

Virtually a breeze
Square, founded by Twitter co–founder Jack Dorsey is a new mobile payment company which in essence allows making payments from any mobile device, securely

Kernel at risk
Microsoft warns of an unplugged security flaw in the 32-bit version of Windows allowing a hacker to install programs, tamper data, or create new accounts

IS YOUR E-MONEY SAFE?

With plastic money fast replacing cash transactions, we look at what could happen if your card falls into the wrong hands, both online and offline

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Undoubtedly, there is sufficient information out there to scare you from using your debit/credit card. We're not here to add to that. We're here to give you the much needed advice and information from the experts. India is considered one of the fastest growing markets in the world.

Average businesses prefer money on paper in the form of cheque or better still cash. However latest statistics show the trend is now changing. Both online credit card usage and real word plastic money is on the rise.

Last year, we carried a Digit Web awards special and in the category on tech shopping, eBay won our award. We spoke to Deepa Thomas, Senior Manager, Corporate Communication, eBay India to find out the trends they see in their visitors. According to her, "Although online buying in India is still in a nascent stage, it is growing at a promising rate of 38 per cent according to figures by JuxtConsult. Today 8 million people transact online, with 38 million still 'window shopping'. 15 per cent of Indians are now transacting online. According to the Internet and Mobile Association of India, the e-commerce market in India is worth Rs. 9,800 crores." Window shopping online is an interesting subject. You don't even have to bother stepping out of your house. 380 lakh people visit shopping sites. This means they're interested in buying online, but either don't have the instruments to trade, or don't trust the web site enough. Why is that?

Tricks of the black trade

1. Spyware: Spyware is malicious software that gets downloaded to a computer without your knowledge when you visit a web site that is either malicious, or has been compromised. Spyware programs run in the background and record information in real-time as it is being typed into a web site by a user. The software can store the information locally on the computer or forward it to a remote malicious computer.

2. Key logger applications: These are slightly more sophisticated spyware applications that can record a user's key strokes as they are being typed on the keyboard. They can capture sensitive information such as passwords or credit card numbers even when a web site and browser have set up a secure, encrypted channel of communications.

3. Proxy servers: Proxy servers are like filters through which all the internet connections in a cyber café are sent. Based on the various settings within the proxy server, data from unencrypted browsing sessions can be captured. This could lead to personal user information tracking that can be extracted from web sites and stored for later use.

4. Phishing: With this rapid growth in the online space, you have two ways of being duped. You'll either be scared to revealing critical personal information or enticed into greed. Phishing is a rising menace. Thomas adds, "Don't fall for those millions you've won in lottery from far off Sierra Leone. In fact, these days, in what is known as social engineering, scammers track your movements and are now using cellphones, emails as well as phone calls to connect with you and get you trapped."

Remember to check for the genuine signs of a true and verified web site. We came across one such spam email of a site that tricks you into revealing your details of Punjab National Bank. After the uninformed bait enters his/her vital information, the page directs all the information to an IP address based somewhere in Australia, before returning the home

page of Punjab National Bank. We got in touch with the Head Office of Punjab National Bank in Delhi, but the response we got was these emails were common and people should be educated about it.

Online has its own advantages

It would be unfair to blame the online shopping space for scams and frauds. There are stringent measures in place to prevent users from logging in fraudulently. This has been a blessing in disguise for online shopping. It's easier shopping with a stolen card than it is to commit fraud online. Recently, the Reserve Bank of India has made it mandatory for all transactions online to be registered by either credit service providers — Visa (Verified by Visa) and MasterCard (MasterCard Secure).

Essentially, all credit card users in India would have to register with their banks and be assigned an additional password to serve as one more level of added security.

At any point in time, eBay India has around 3,50,000 items available that you can sort by price, make, style and several other factors – all in the comfort of your home. Ebay is protected by PaisaPay, which differs slightly from PayPal. While PayPal is a wallet of sorts that behaves as an interface between your bank accounts/credit/debit cards and the merchant, PaisaPay is a secure payment gateway exclusive to eBay India. With PaisaPay, all your information to and from Ebay India's servers is encrypted, and secure.

Rajiv Chadha, Vice President, Verisign India

Besides, you can also track the status of your order through SMS.

We spoke to Rajiv Chadha, VP, VeriSign who shared some startling figures with us — "38 per cent of Internet users in India do not use different passwords for multiple log-ins. A minuscule five per cent adopt virtual keyboards to log in their details. Merely 11 per cent of internet users in India look out for the authenticity of the web site by looking at the security provider. Only as many as 32 per cent internet users in India create a secret question that only they can answer. As many as 83 per cent Indian internet users do not look for secure web sites (https:). Only 9 per cent of internet users in India are aware of green URL bars as the sign of a secure web site."

It doesn't end there. By being so casual about financial matters, Indians are just staying vulnerable to scams online. Mr. Chadha added, "There are many ways in which compromised credentials can be used fraudulently — and without the end-user's knowledge. It is very important to also note that these activities might not occur immediately after the information is captured. The information could be sold to different parties and can be used over a long period of time". This makes it all the more important to be aware of the various ways in which personal information can be captured and take precautions to lower the risk.

You can email spoofs@ebay.com and mention any seller you feel cannot be trusted. All intimations at this id are shared with the Indian Computer Emergency Response Team (CERT) which is a watchdog that alerts users of frauds and infections and attacks we need to be aware of.

If you have an online account, an internet banking account, or a credit/debit card then ensuring privacy and safe

Deepa Thomas, Senior Manager, Corporate Communication, eBay India

custody of the card and log-in details is your responsibility.

But what about the real world?

With plastic money fast replacing cash transactions, what if your card falls into the wrong hands? Of course the bank will disable the card as soon as you intimate. But it's this interim time period that we're concerned about.

There are certain safety measures that have been built into the system. Possibly the most fool proof of them all is having a photo debit/credit card. If the mug shot on the card does not match the person handing over the card, counter staff can easily figure out if something is amiss.

The second important safeguard is in the form of a PIN number that has to be entered each time to validate a transaction. Again there are a few banks such as SBI that offer this facility. But the most basic protection is the signature at the back. You would've probably noticed a block print underneath the box on the rear of the card that says AUTHORISED SIGNATURE — NOT VALID UNLESS

CRACK THE CODE

Note down every N^{th} letter of the following sentence (ignore punctuation marks), starting with the first letter of the sentence. The letters you have are an anagram. Unscramble them to get the answer (three words). Go back to the place that directed you here, and enter the answer there. If you played by the rules, you know what the value of N is.
Eg. if n=5, you get CDAROUD

Can code be hacked? Race to a cloud can do it.

Tightning the net
Not taking any more chance, Google announced HTTPS will be will be activated by default for Gmail soon

McAfee and Facebook
Not to be left behind, Facebook has partnered with McAfee to instill confidence in its 300 million userbase

TIPS TO STAY SAFE ONLINE

If you missed out on the list of security features to identify a trustworthy web site, have a look at this quick checklist.

1. Avoid following links when it comes to shopping online. Always key in your own URL. It is better not to follow search engines when it comes to transacting online.
2. Never share any personal or financial information on a non-secure web site.
3. Always personally verify email pleas to donate or plans of earning a quick fortune (even if it be from a known person).
4. Always ensure your transactions occur with an encrypted connection.
5. Look out for a golden lock on the bottom of the screen, and https: in the address bar.
6. When online users equipped with current versions of Internet Explorer, Firefox, Safari, Google Chrome, Opera and other browsers visit a site protected by EV SSL Certificates, the top address bar turns green and displays the name of the company operating the web site. This green bar offers immediate reassurance that they've reached a site whose authenticity has been verified by a certificate authority such as VeriSign, the world's leading EV SSL certificate provider.
7. Never respond to emails of urgency. They're usually phishing.
8. Block all spam emails you receive.
9. Regularly login to your online banking accounts to check for any suspicious activity.
10. Do not sync your financial passwords with your regular email passwords.
11. When using a public computer, restrict browsing to information-only web sites such as news sites. Avoid accessing any e-banking, e-brokerage, e-commerce web sites that require you to divulge personal information such as usernames or passwords.
12. Never store usernames and passwords in Internet Explorer
13. Use an up-to-date anti-virus program, and ask the cyber cafe attendant on a public computer to check the toolbar to ensure it is safe.
14. Always logout from transactional web sites to be sure your safety will not be compromised after you have left the system.
15. Finally, clear browsing history and cookies after your session.

Source: Deepa Thomas and Rajiv Chadha

SIGNED. This needs to be taken seriously, as the signature is a low tech first line of defense against credit card misuse. However it needs to be implemented to be effective. Do merchant establishments that have card swiping machines, ever match signatures? We decided to put this to test at some of the biggest technology stores in the hope that we'd be proved wrong. We chose large technology retail chains based on a simple logic — outfits dealing in high value products that are on the cutting edge of technology, need to up hold technological safeguards right? We created several scenarios to test real world security measures in the area of electronic transactions. Two digit team members went to four different electronics retail stores throughout Mumbai. At their disposal, were two debit cards, both of which were unsigned. In fact one was a photo id card. This is worth mentioning because two operatives couldn't look have looked so unlike each other even if they tried. When the undercover operatives used the cards they made no attempt at forging the signature of the card holder. Instead they simply signed their own names.

Target 1:
Reliance Digital Store, Vashi

The store had very few customers and there was no queue near the payment counter. We used the unsigned card at this location. The clerk behind the counter went about completing the transaction without bothering to even flip over the card to verify signatures (in this case there was none). The name that was signed was drastically different from the one that appeared on the card.

Alertness — Nil

Target 2:
Tata Croma, Vashi, Navi Mumbai

Here we used a signed debit card. The counter person had the card with him for quite a while but there was no effort to verify the signatures. As soon as the printed slip was signed the slip was returned without any kind of verification.

Alertness — Nil

Target 3:
eZone, Bombay Central

Here we used a photo debit card. Strangely, the card was in the possession of the counter staff for close to five minutes. In the whole time, no one bothered to look up and verify the photograph. The counter person noticed however that there was no sign on the rear of the card and asked the customer to sign it, but the matter wasn't enforced. Although in this case the staff was slightly more alert than the other times, it was only pointed out after the transaction was completely over.

Alertness — Somewhat

Target 4:
Tata Croma, Lower Parel

Here again we used the unsigned card with the photo id. Neither the signature nor the photo was verified at any point of time. There was no sort of verification whatsoever. The transaction was quick.

Alertness — Nil

BE THE WISE CONSUMER

As Arun Saxena President, International Consumer Rights Protection Council advises "always read the fine print. Rather than being driven by your instinct to own a credit card, remember the interest rates associated with credit." A smart tip he gives us is to strike out points that could be used against us on the printed agreement. As he puts it, credit card companies live on consumers defaults, without which they wouldn't be able to survive in this competitive market."

Avoid shopping for high value products from online shopping web sites that you don't trust, as you can never be sure of the final product being delivered. Saxena feels "for low value items, ebay seems to be a good web site because your payments are safe through PaisaPay. But it is preferable to buy from a mall as you can touch, feel, and see the colour and working of the unit you are buying."

He adds, "Keep your credit card account, Savings account and Loan account in different banks so that they cannot take out money from another account."

Implications

This raises a lot of questions. Are merchant outlets so eager to effect a sale that they don't really care where the money comes from? Besides, what are the protections in place for the consumer if his card is stolen and purchases are made from the card. Abroad, if the card is stolen and used, the credit card company reverses the charge (once the user complains) and the merchant has to prove that the owner of the card actually used it. If the merchant cannot prove it then he has to pay a heavy fine. The credit card user is protected as long as he reports the

loss and contests the charge on the bill. On MasterCard's India Learning Center web site it is stated that "As a MasterCard cardholder in India, most card issuers will not hold you responsible for unauthorised purchases charged to your account, after the card issuer is notified of any loss, theft or disclosure relating to your card. If you discover any loss or theft, or suspect unauthorised activity on your account, stop using your card and contact the issuer immediately."

There are legal issues here too. Apart from the extent of punishment a fraudster receives it is important to know whether the merchant establishments are required to verify or cross cheque the signature. We asked Karnika Seth, Attorney at law, and Chairperson of the Cyber Laws Consulting Center what the situation is from a legal standpoint. "As far as the imposter or person who impersonates the rightful holder of the card is concerned, he could be charged under Section 416 of the IPC and liable to punishment under Section 417 with imprisonment for a term of 1 year or fine or both. The actual holder of the card may also be guilty of contributory negligence if he had negligently kept the credit card which was then misused by the accused. As regards the merchant, he may not have an explicit obligation to check and verify the identity of the card holder unless specified in the contract with the card issuer. But under Torte law there is a duty of care. An hence it is in their own interest to check as if there is a credit card fraud, the merchant loses the goods or services sold, the payment, the fees for processing the payment, any currency conversion commissions, and the amount of the chargeback penalty. Usually, a credit card company will not be liable in a such a scenario unless it acts negligently by not blocking the card when once an immediate notification of card being lost is made to the Bank. The banks generally bear the 'zero liability' on lost card clause" she said.

On Master Card's Indian web site it is clearly mentioned that "retailers must follow specific data security requirements in order to accept MasterCard cards. MasterCard Worldwide rules and recommendations apply to all transactions – whether they occur in a store, online, or over the phone." Under the card fraud checklist there is specific mention of comparing signatures. "The back of the card must be signed, and the signature should reasonably compare to the cardholder signature on the sales receipt. Check to make sure that it has not been taped over, mutilated, erased or altered in any suspicious manner. The word "Void" on the signature panel indicates that the signature panel has been tampered with."

There is also the possibility of asking for photo identity for transactions. It is worth noting that at one of the establishments we noticed a board stating that a photo identification will be required for purchases above Rs. 7,500. We wonder if this will work since here customers might get anywhere from offended, annoyed and even embarrassed if they're asked for identification.

What about those little slips that you sign? How do they fit into the whole process? Are they ever checked? In fact we decided to go ahead and try this out and the picture says a lot doesn't it? We signed "Mc Donalds Rocks" at a Kentucky Fried Chicken (KFC) outlet. The person behind the counter looked at the signature and still continued with the transaction.

We began to wonder if this problem is unique to India. Turns out the situation is no better in the US either. We came across a hilarious blog (zug.com) in which a frustrated customer by the name of John Hargrave, went to great lengths to answer the question "How crazy would I have to make my signature before someone would actually notice?" He then goes on to narrate a rib tickling tale complete with pictures, of how he put down signatures ranging from mindless doodles to elaborate grids, musical notes and in one case hieroglyphics depicting a snake, birds and mountains, in an effort to elicit some sort of reaction. Not once was he questioned. Not once did he hear from his card issuers.

For the signature it says "Mc Donalds Rocks" on a KFC charge slip

From our own experience too we are beginning to wonder if the entire signature process is a useless mechanism designed to make you just feel safe, like security checks at malls. Perhaps the safety measures in the online world are actually better. We've written to each of the retail chains we made purchases from to understand this issue further. We're yet to get a reply.

CREDIT CARD INSURANCE

Some credit card companies provide insurance at very low premium rates. We spoke to customer support executives of a few banks. The HDFC Bank executive said they have recently stopped all such theft insurance services and that we could get any relevant information we need from the bank's web site. According to the web site, by informing the 24-hour customer care, any fraudulent transaction is borne by the bank. When we spoke to Citibank, we were informed that they do have a theft insurance program, but that it is a relatively new service. They haven't received any reports of theft or loss arising after starting this service. Also, they advise the consumer to inform them of the loss and get the card blocked. Simultaneously, they conduct an internal investigation on their own and stay in touch with the relevant authorities.

SECURITY TIPS

Security tips from the American Federal Trade Commission to avoid card frauds

- Sign your cards as soon as they arrive
- Keep an eye on your card during the transaction, and get it back as quickly as possible
- Save receipts to compare with billing statements
- Notify card companies in advance of a change in address
- Report any questionable charges promptly and in writing to the card issuer

CRACK THE CODE

On the cover, find the name of the building that has the hacker on the roof. Enter that name and the Digit page number you came from (to get to this clue) in the following manner: thinkdigit.com/d/<name_pagenumber> to get your next clue.

Avast Antivirus 5.0
Avast Antivirus' latest version has improvements in virus detection techniques

More patching
Microsoft to release a patch to plug security holes in its flag ship browser – Internet Explorer

INVADERS FROM OUTSIDE

Rossi Fernandes
rossi.fernandes@thinkdigit.com

The threats may have reduced but for how long? We review some of the suites out there and see if their claims hold any truth...

Let's face it. Viruses, worms, roots and its other many forms will always be a problem for PCs and all computing devices. While most of this so called malicious code exploits holes in the operating system, we as humans are partly to blame. All antivirus and security suites do is offer that additional layer of prevention. If we were wise enough to avoid all the obvious threats by not clicking on that very oddly named .exe file or executing that mail attachment, we wouldn't need a security suite, would we?

As it turns out, very few of us avoid all of these mails and files, and sometimes because of the security bugs in the software and operating systems we use, they do get infected. And when they do, we have no one to save us! Security suites simply ensure that these viruses and worms don't intrude into your system.

With the kind of viruses and worms being designed to hit every security suite out there, once a worm or virus is in, hope is lost. There starts the long and painful journey to fix. Most worms will disable access to sites to ensure you can't find a fix or update to disable the paralysed suite. Therefore, one of the key things companies have had to do is to update the virus definition and use more intensive techniques to detect such threats and disable them first.

In this feature, we look at some of the most popular security suites, many of which are available in India. We are also aware that people have their favourites like with any other product category — only in this case, there are no clear ones.

K7 TotalSecurity 10

K7 Computing is one of the lesser known players in the security solution market. Their product called K7 TotalSecurity is a complete security suite for desktop users.

When you start the installation, K7 TotalSecurity does a preliminary scan to ensure there are no threats pre-existing on the system. After the installation, and with the suite registered, updates are downloaded and installed. There is little to go wrong here.

K7 TotalSecurity is a thorough security suite, but the interface isn't enticing. K7 has gone with a very traditional and simplistic approach but the quality and design of the icons and layout could definitely be improved.

The interface looks as if there are only a limited number of features and also a limited amount of settings available for each of those features. When you get into each of the settings and try to modify the parameters, you notice the complex menus and terminology.

The firewall allows blocking of network traffic, but you can manage an allow list for critical applications such as your browser and different components of the security suite as well. There is also support to protect popular instant messengers such as AOL, MSN and Yahoo messengers. It also integrates with Outlook to take care of any spam.

Separate logs are maintained for events related to each of the components that make up the security suite.

Memory consumption crossed over 120MB while scanning the system for viruses. With our system running on 1 GB of memory, it showed noticeable slowdown. All in all, a decent solution but one that people might ignore just because of the appearance.

Price: Rs. 600 , (single user – 1 year)
Rs. 1,500 (3 users – 1 year)

AVG Internet Security 9.0 Business Edition

AVG became well known and popular among most users because of its free edition. This Business Edition of their Internet Security suite is designed for larger offices and has protection for things like a local anti-spam server and the e-mail server itself.

The interface itself hasn't changed from previous versions. Updating of the suite can be done from within the software. For those on dialup connections or connections with bandwidth limits, you can also update through a folder — this way your friend could download the updates for you. For some reason, there's even an option to rollback to previous virus definitions.

Like in many of the other suites, protection for instant messengers is also present for Yahoo!, ICQ and MSN, but only for the official clients.

The advanced menus have many more features like the very simple to use dashboard, which just shows you all of the components of the suite and their current status. Double clicking on it shows you some of the settings and exceptions you can allow. Click on the Advanced settings menu and you find an indepth range of settings. Each of the menus and options are very simple to understand, so you don't have to be some kind of a security expert to figure your way around it.

As for performance, the memory consumption while scanning didn't cross 10 to 20 MB, but the CPU utilisation kept spiking between 30 and 80 per cent which can be annoying as it slows down older PCs by a fair bit.

The standard desktop edition of the same suite is almost identical except for some of the mail server and spam server protection. The memory consumption and CPU utilisation hasn't changed a lot either.

6/10

Features: 6
Performance: 5.5
Ease of use: 6.5
Value for money: 7

This is a good option if you want something that is thorough and that lets you make fine changes to the behaviour of the suite.

Price: Rs. 1,599, (single user – 1 year)
Rs. 7,099, (5 users – 1 year)

Comodo Internet Security 2010

Comodo has one of the nicer looking interfaces among security suites. Comodo is generally known for its firewalls than antivirus and security suites. A nice touch is also the Proactive Defense mode which sets a security level to be maintained on your system. The suite is stricter and if you set the level to Paranoid, the suite shows up alerts for every possible threat it detects. There are also presets to set the suite's functions. The suite can behave as only an antivirus, a firewall or a complete suite on demand.

The suite allows users to use some of their DNS servers to avoid any kind of domain spoofing that might happen on other public DNS services. This is something new to security suites. Comodo's Internet Security suite focuses on the network aspect a lot probably because of its networking security focus in the past. The main dashboard displays network statistics and programs that are accessing the internet. Constant updates from Comodo's network are also displayed on one side.

Even starting a system scan is simple – you can choose between just the critical areas of the PC or the entire system. Advanced scans can be run using the Antivirus tab on the interface. Schedules can also be setup and presets for the same can be created. The same ease is available with the antivirus feature.

There are no performance issues whatsoever with this suite. Memory consumption stays under limits at around 10 MB at idle. Features such as data protection, identity protection or even parental control don't seem to be on the list of priorities. Although, those aren't features absolutely essential, it's still something most customers would look at while purchasing a suite.

Price: Rs. 2,250

7/10

Features: 7
Performance: 6.5
Ease of use: 7
Value for money: 7

Google China troubled

The cyber attacks on Google originating from China were a 'water shed moment in cyber security' according to McAfee insider

Phishing on the rise

Recent victims include Punjab National Bank, Bank Of India and HDFC Bank

7/10

Features.....7
Performance.....7.5
Ease of use.....7
Value for money.....6

Price: Rs. 1,450 (single user – 1 year)
Rs. 2,495 (three user – 1 year)

Norton Internet Security 2010

Symantec has been at the forefront of security solutions for a long time and for many people, Norton Antivirus or Norton Internet Security is the first thing that comes to mind when you talk viruses.

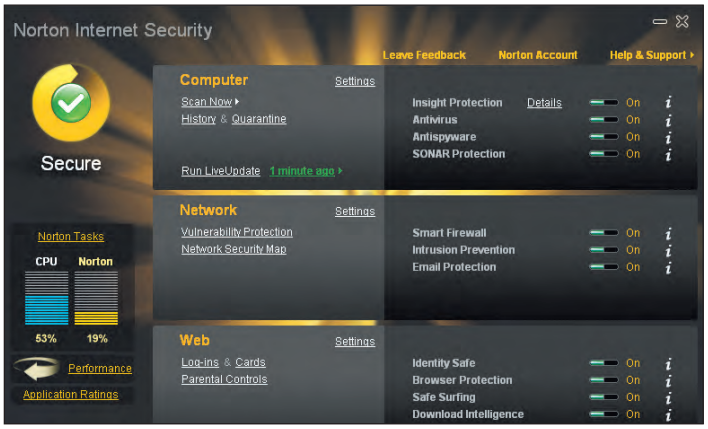
The new Internet Security 2010 has an evolved version of their new interface that they've been using for the last few releases. It's one of the fanciest looking interfaces around. A bright tick mark confirms that the suite is up-to-date and the system perfectly fine. SONAR2 is the updated system designed to prevent virus attacks well in advance by using the cloud.

NIS 2010 comes with many unique features. One of them is the application ratings window which shows ratings for applications running and installed on the system. This is information gathered from Symantec's online database. Similarly, application performance is also displayed in one of the menus and also on the main dashboard interface. There's even an Optimize button to tweak the system. A proper history of applications and their system resource consumption over the last few months is displayed in a very fashionable manner.

Like all the other suites, instant messenger protection support is available only for the official clients of the popular messengers. In this case, Trillian, a third party, all-in-one messenger, is also supported. A lot of emphasis is laid on the protection of privacy online, so the suite contains a lot of features designed to protect your identity through cards and logins. Phishing is also one of those things.

This security suite is designed for streamlined workflow — it shows up all the scan schedules in a table. Memory consumption at idle is around 15MB. With the scans running, it shoots to about 90MB.

Norton Internet Security seems to evolve every single year and the changes are visible. The focus has now moved towards protecting people's identities and information on the internet. It sure does the job well.



6.5/10

Features.....6.5
Performance.....7
Ease of use.....7
Value for money.....6

Trend Micro PC-cillin Internet Security 2010

Trend Micro's PC-cillin Internet Security 2010 is considered to be one of those top antivirus and security solution developers for more than a decade. Many of us might know Trend Micro from Hotmail's official email scanner for a long time.

Their desktop security suite uses around 25 MB of RAM over three services. With the scans running, this goes up to 50 MB.

The Trend Micro interface doesn't simply show all of the advanced settings in one big window leaving the user lost. It has separate menus and windows for each of the components.

The Parental control feature is built into the suite. It's easy to use because it allows you to simply allot a set of rules for a particular user account in Windows. The data theft protection feature stops you from giving away sensitive and important information. Like Comodo, Trend Micro PC-cillin Internet Security 2010 also allows creating of customized scans and scheduled scan tasks.

7/10

Features.....7
Performance.....7
Ease of use.....7
Value for money.....7

The Pro version of the same suite is also available. Some of the features of that version come with the option of

Securing DNS
DNSSEC extensions or DNS security to make the ether waves more safe to surf for everyone

Don't even TWEET about it!
A disgruntled traveller was arrested at an airpoirt in UK after he tweeted to his friends that he was going to blow up the plane

VIRUS REMOVAL APPS AND TIPS

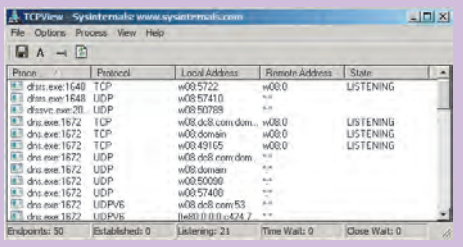
USB Flash drive has a worm in it. How do I check and remove it?

Press [Windows] + [R], type CMD and click on OK. At the prompt, type E: (if E is the flash drive letter) and press Enter. Then, type DIR/AH to list all hidden files. If you find the files AUTORUN.INF and VirusRemoval.vbs, type `ATTRIB -r -s -h <file>.<ext>` to unhide and remove the read-only permission from it. Then, delete the file using the DEL command (eg. DEL AUTORUN.INF) or using Windows Explorer. RECYCLER is another folder that is home to some other worms.

Curing the common virus infection

The easiest way to find a worm or virus is to look at the trusty Windows Task Manager. Look for processes taking up the most memory or CPU utilisation. If the process name is a little suspicious, it could be a worm or virus. Google up the process to be sure – whether it's a legitimate application or something that doesn't exist at all. Next, do a system wide search for that application or by using the command – `DIR <file>.<ext> /AH /s` from the root of the Windows partition. Try forcing the application to close and quickly delete using Windows Explorer. If that doesn't work, use Unlocker to do it.

Next, open up the Windows Registry Editor using the regedit command in the Run dialog box ([Windows] + [R]). Browse to the Software\Microsoft\Windows\CurrentVersion\Run path under HKEY_LOCAL_MACHINE and HKEY_CURRENT_USER. Delete any entries of that process.

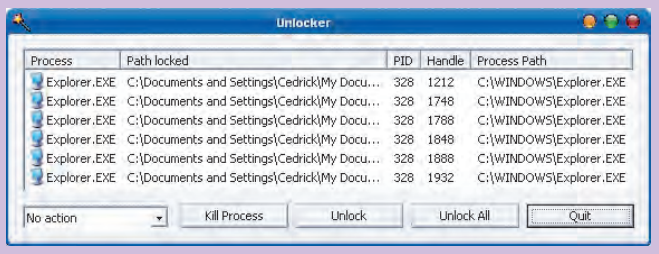


TCPview — a free connection monitoring tool

Applications to use

Unlocker

Unlocker (http://ccollomb.free.fr/unlocker/) is a free application that allows users to unlock stubborn executables. This is useful when you've identified any worms or viruses and you need to delete it. Unlocker can help delete them on next bootup before the process loads.



Unlocker helps unlock and then delete unremovable files

TCPView

TCPView (http://tinyurl.com/2pc3vq) lists all the applications making connections to the internet. Assuming that you have no browsers, P2P clients or download managers running, this program can help identify and suspicious behaviour. Look out for processes sending tons of requests to PCs on the network and the internet.

backing up of up to 2 GB of data online, instant messenger protection and also wireless network security. We feel instant messenger protection should have at least been part of the package since almost every computer user today on the internet uses some kind of instant messenger or the other. There's also the included network management tool to remotely control other PC-cillin suites. This is a growing trend with many security suites.

Like many other companies moving towards the cloud and using their software users to contribute information about suspicious files and services, Trend Micro too has a similar system up called Smart Protection Network.

This is another suite that uses the cloud to its advantage. A few missing features but other than that, it's a solid suite to consider especially for easy operation.

Price: Rs. 2,500
(three user – 1 year ($55))

eScan Internet Security Suite 10

eScan Internet Security Suite 10 from Microworld is another suite that is popular in India. They have most of the features bundled with other competing anti-virus suites.

The interface looks uninspired — there's use of a simple plain blue colour with very boring buttons that are pretty much the same as previous versions. There are two buttons Update and Product Key that could have been hidden away instead of being positioned right with the system scanning button.

6.5/10

Features.....6.5
Performance.....7
Ease of use.....6.5
Value for money.....7

eScan Internet Security Suite uses Team Viewer as a remote support program. By enabling it, registered users can get remote help from eScan. You obviously need to be connected to the internet for those to work.

The USB Control feature blocks access to USB flash drives and even allows disabling of the Autorun function. USB drives are one of the easiest ways to get your PC infected.

Memory loss
Kingston Technology recalls some DataTraveler models after a security flaw is discovered

New Opera CEO
Lars Boilesen succeeds Jon Von Tetzchner as CEO of Opera

In the same manner, suspicious applications can also be blocked.

There's even remotely checking on other installations on the network. With its non-flashy user interface and pretty low system resource needs, it's a solution for SoHos running slightly older hardware. The pricing is pretty impressive as well.

Price: Rs. 1,250 (single user – 1 year)
Rs. 1,600 (three user – 1 year)

F-Secure Internet Security 2010

F-Secure's Internet Security 2010's installation starts with a bang. Once the automated installer reboots the PC, the suite starts updating while you're shown a display to set up all the parental controls. Speaking of which, there is a very good level of settings made available. For example, you can choose how many hours in a day and the period during which browsing is allowed. You can choose to restrict or allow browsing on weekends and also set a period for that. Finally, a list of categories of sites is displayed to choose from. Simply tick mark the category of sites to be allowed.

Just when you thought the user interfaces of these suites couldn't get any classier, F-Secure does one better. Just like its streamlined installation procedure, the user interface has a really classy look with just three buttons – Status, Tasks and Statistics.

7/10

Features.....5.5
Performance.....7
Ease of use.....8
Value for money.....7

Other than that, F-Secure doesn't look like it does a lot more. Data identity and protection are out of the question and there is none of the online storage services allowed. The other usual components are present. With the fancy interface comes more memory consumption. F-Secure uses close to 35MB of memory on idle and around 60 MB during scans.

Price: Rs. 1,400 (single user – 1 year)
Rs. 2,700 (three user – 1 year)

Rs. 10 off on Digit Pre-order today!
Order the March 2010 edition of Digit. Book before 20th Jan and get Rs.10 off. Go to www.thinkdigit.com/store

Conclusion

It's difficult to conclude a comparison review of security suites. Updates and their range of detection really govern the performance of a suite. It's something that changes every couple of days when a new virus or a new virus definition is released.

The suites from F-Secure, Trend Micro and Symantec were some of the best as far as ease of use were concerned. A security suite which uses complicated terms and menus isn't a great idea with the slightly non-geeky crowd. These suites are suitable for home users.

It was also good to see suites using less than 100MB of RAM. CPU utilisation was a little higher in the case of AVG Internet Security. Trend Micro was very efficient as well. When compared with the others, F-Secure lacked in features. eScan did too but it had some nice unique features such as the remote support.

No matter what anti-virus suite you use, you're never absolutely free from vulnerabilities. It's only a matter of time before one of these are exploited. An unpatched operating system, an instant messenger or email client are just some of these loopholes. Moving viruses detection techniques and databases to the cloud allows for real time detection of threats. It's a step in the right direction but getting quick fixes is a different story altogether. That's left to the developers to ensure there isn't another one of those chaotic scenes where PCs all across the globe are infected by a computer virus epidemic. d

HOW WE TESTED

The security suites were installed on a Windows 7 system running a Pentium 4 3 GHz processor and 1 GB of memory. We did this to try and simulate what the majority of users would be running in terms of hardware, as well as check compatibility with the latest platform.

The test was primarily focussed on features. Performance is something that's very difficult to gauge no matter how large a virus set you use. With the number of viruses that come out every day, performance ratings for a security suite could be invalid the very next day.

We were looking for a light security suite. A security suite that slows down the system to a standstill is of no use at all. We looked for suites that would be simple to use without throwing up all kinds of technical terms to confuse a user. The comparison review is specifically meant for home users and also some small offices.

Every security suite needed the prerequisite feature set – it had to have an antivirus, a firewall and preferably spam filtering and other similar features were an added bonus. We tried out all these features to determine how useful they were.

Analyse this

An online service that lets you paste EULAs and helps you identify phrases that should interest you. Head over to www.spywareguide.com/analyze/analyzer.php

Alternate names

The EULA may often be referred to as the software license, user license, terms of service or terms of use (as in the case of online services)

LOOK BEFORE YOU CLICK

We help you understand the really fine print

Unless you were born yesterday you've probably signed up for an online service or installed software on your computer. While flying through endless "Next" clicks, there is usually a point where you need to switch an innocuous radio button to "Agree" before clicking through. This whether you know it or not is the dreaded EULA or End User License Agreement. Ideally, you're supposed to read this lengthy piece of legalese to know your rights as a user. And also to know if by clicking "Agree", you are inadvertently signing over your life savings to a con artist from Nigeria or giving rights to the software company to break into your sock drawer should they choose to. If you've never bothered to read an EULA before you should know that safety begins by being informed, of everything — especially the fine print.

Many EULAs now have clauses that prohibit you from benchmarking the software or engaging in any sort of comparison. Other stipulations state that users cannot publicly post criticism or derogatory remarks about the software. Back when the Windows 7 beta build came out, its EULA restricted users from revealing results of speed tests or benchmarking. Popular blogs then had to find alternate ways of comparing it with Vista and XP — some did not give exact timings (with units of measure) but gave information through visually represented bar graphs.

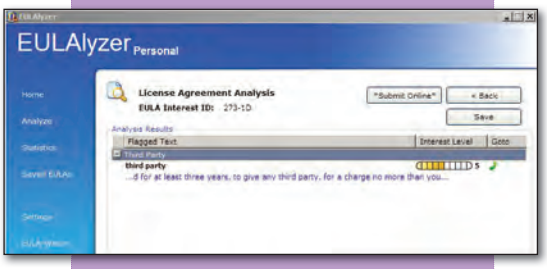
EULAs also contain important details about the impact on the user's privacy. These include things such as the kind of data that will be sent back to the developers and whether the data is personally identifiable. Facebook too came under the scanner for the draconian terms of its EULA (or Terms of Service in this case) several times. A long time ago, Facebook's TOS said it owned user generated content even after the user disables their account. Later it read something like this "You hereby grant Facebook an irrevocable, perpetual, non-exclusive, transferable, fully paid, worldwide license (with the right to sublicense) to (a) use, copy, publish, stream, store, retain, publicly perform or display, transmit, scan, reformat, modify, edit, frame, translate, excerpt, adapt, create derivative works and distribute (through multiple tiers), any User Content you (i) Post on". Or in plain English, "Anything you upload can forever be used by Facebook for whatever reason, no matter what". Following the strong reactions from users TOS was of course altered later.

Through the EULA you get to know of all such possible pitfalls. You need to know if the software you're about to install or the service you're signing up for, displays pop-up ads, transmits personally identifiable information, uses unique identifiers to track you, whether there is a time sensitive expiry, does the software automatically update itself via the internet or whether certain features disable suddenly.

Coming to the flip side of this coin, do the software makers accept damage liability? When you have got yourself software that is badly coded and results in data loss, you should be able to pin damages on the software providers. However, in defining the manufacturer's liability, many EULAs absolve them from taking any responsibility for damage. All EULAs have one thing in common, you have to accept the terms or relinquish the right to use the software. Still, many EULAs get challenged, and at times violations on the part of the vendor can also be brought out. Take the case in point of Amazon's Kindle ebook reader device. The device lets you buy electronic copies of books that you can keep on your device. But a while back due to some copyright issues Amazon retracted copies of George Orwell's 1984 from users' devices. Users had no idea that such kind of functionality was even built into the software and device. Apparently, under the Use of Digital Content section, its EULA had clearly mentioned that Amazon had the final say on the right to keep a permanent copy of any digital content on the device. Prima facie this seems like a breach of contract, doesn't it? Bottom line is — be an alert user and know what you're getting into, and for the last time — read the fine print — please — you may thank us later!

EULALYZER

Even after giving you all this gyan, we're pretty sure hardly anyone reading this is ever going to go through a cumbersome and confusing tome like a EULA. While it's true most of it is standard boilerplate nonsense, there are some bits you must go through. Fear not. Here's a little software that will help you weed out the legalese and zero in on the parts that are most relevant (and juicy). Find EULAlyser in the DVD and throw any tough nut EULA at it.



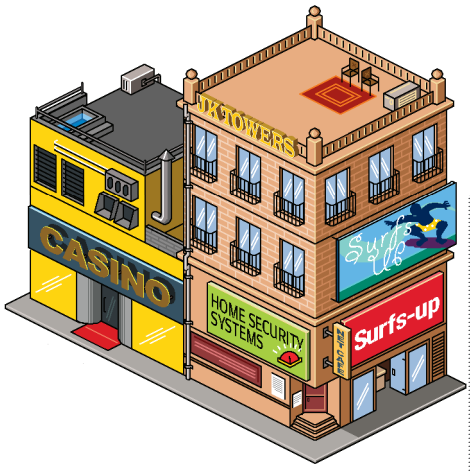
The app will break it down and give you a list of attention phrases with convenient "go to" links. There is even a submission facility to harness community knowledge on a particular EULA. We ran the EULA of a harmless open source software called DVD Flick though it, and it was still able to point out phrases like "Third Party" with an interest level rating of one to five for each phrase.

Dorgem
Another streaming application to try out is Dorgem, it has some pretty advanced features and is Open Source.

Advanced Eyespyfx
If your webcam has a mount and rotor, you can use Eyespyfx to remotely pan and tilt the camera as well.

TIME TO WATCH OUT

If you need a simple, straightforward way to monitor a location using basic equipment, locally or over the internet, read on...



Aditya Madanapalle
aditya.madanapalle@thinkdigit.com

You do not need expensive equipment or software to set up a simple video surveillance system at your home or office. Any standard web cam and a computer will suffice for the basic surveillance setups outlined below. There are two scenarios under consideration, one that stores data locally, for set-ups without internet access, and another to stream the video over the internet onto various platforms. If you don't already have a web cam, look for one with a long cord, and something small and discreet, as well as a mount, if you need to locate the web cam against the walls. Many web cams come with clip-mounts, which can be used to place the web cam at strategic locations. If you're using devices such as netbooks with inbuilt cameras, be sure to change the battery settings in a way that the machine does not go into sleep mode on inactivity. If you are using a laptop or a netbook for long periods of surveillance, which is not advisable, remove the battery from the casing and use the power cable only, to lengthen the life of your battery.

Using Yawcam for offline surveillance

Yawcam stands for Yet Another Webcam application, and is a small software that can be downloaded from www.yawcam.com. It is a small program that packs in plenty of features. The software also has motion detection, a feature that can be used to trigger recording as and when there is any activity in the area under surveillance.

Step 1:

On first start after the application is installed, you will have to select a source for the video. An inbuilt camera on the system, a video camera attached through USB, or a web cam can all be detected by Yawcam. Go to `Settings > Device(None) > Change to` and select the source of the video. If there is no option here, make sure that a camera is connected, and all the relevant drivers installed. Once selected, the video window will immediately start showing a live stream.

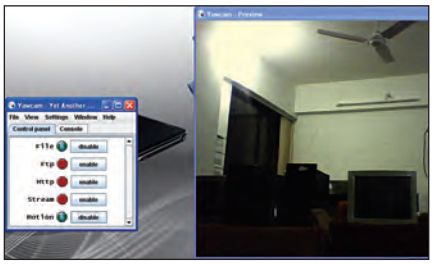
Selecting a video source

Step 2:

In the main Control Panel tab of Yawcam, are five basic toggles. File, FTP, HTTP, Stream and Motion. Click on File. This will start saving the stream onto the local hard disk, in a temporary directory. Go to Settings > Edit Settings > Output > File. Click on Browse to change a path to a suitable location on your hard disk. The Image quality option allows you to reduce the file size of the stored images if you are conservative about disk space. The Type option has a few file formats, JPG is an ideal format. The interval option specifies a number of seconds after which an image will be saved.

Step 3:

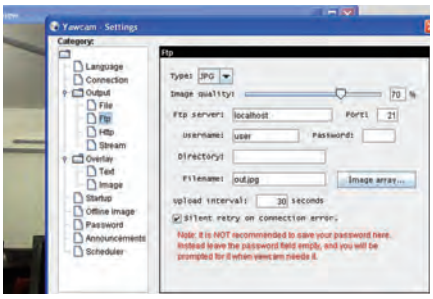
Enabling motion detection saves a photo every time there is some change in the image on the webcam. Unfortunately, there is a "click" sound when the image is saved. There is no easy way to turn this off, and reducing the system volume is the only alternative. Be sure to select this option at the very last moment, before the surveillance begins, as there will be a few images saved as and when you move around after enabling it.



Motion detection in Yawcam

Step 4:

Yawcam also allows you to save the images on a remote location, such as an FTP server. For online surveillance, a better option would be to stream live video, but if you do want to save to a remote location, enable the FTP toggle, go to `Settings > Edit Settings > Output > FTP` and enter in the details of your FTP account. You will need an IP address, a password, and the authentication details. While Yawcam also allows you to stream content online, there is a



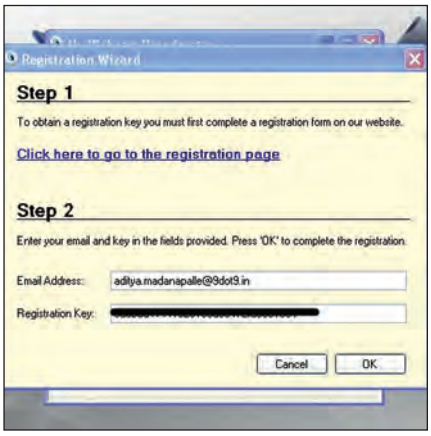
Uploading to FTP

better software for doing that, known as Eyespyfx.

Using Eyespyfx for online surveillance

While Eyespyfx does not have motion detection, it has a very simple approach for streaming video from a camera online. The client for broadcasting the video is free to download and use. Once a stream is set-up, a browser window from any location can be used to keep an eye on the streaming video, including WAP enabled mobile phones. There is a dedicated mobile app available also, which comes at a price.

Step 1: Download and install the Eyespyfx broadcaster client. The client automatically picks up a video stream from any connected camera, and displays it on the desktop. On first run, you will be asked for an e-mail id and a registration key. This is free, and is a method to tie in your video stream to you, and allow for secure access. You will be directed to the web site for sign up, which just requires a name and email id. A registration key will be supplied to you immediately, which you have to copy paste into the software, along with the email ID you provided. Along with the registration key, you will get a secure pin number, which can be used to access and identify the camera.



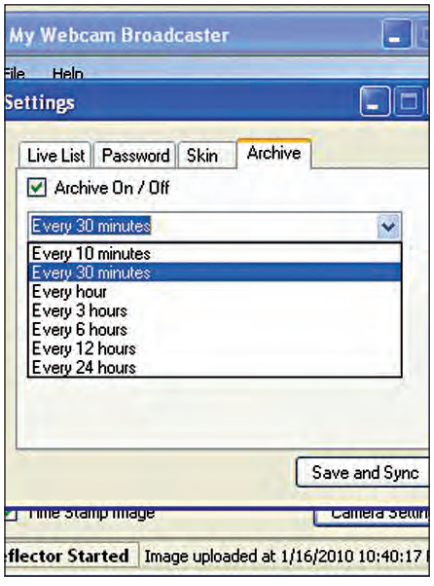
Keying in registration details

Step 2: You will be asked to choose a name for the camera. This is to identify the camera, in case you are using multiple cameras on the same account, which is also possible. Once you enter in a chosen name, the camera goes live, and starts streaming the video online. At this stage, the video stream can be viewed by anyone lurking on the Eyespyfx site, so proceed to the next step

Choosing a name for the camera

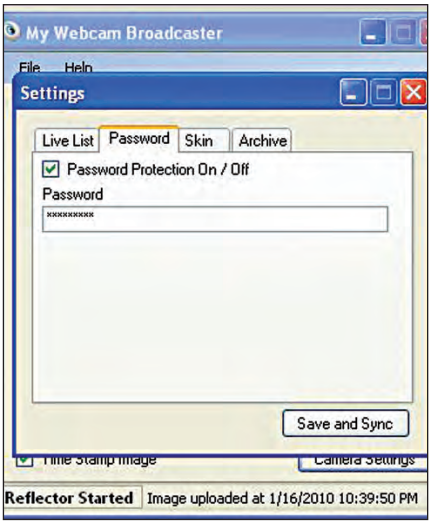
quickly. There are various streams of video to browse through on the site, so your stream is likely to be buried somewhere in the list, however, it is a good idea to make the video stream private.

Step 3: Click on Camera Settings and go to the Password tab. Check the Password protection On / Off checkbox and enter in a password. This screenshot shows a line of asterisks, but the software does not hide the password, so be careful of this if someone is watching over your shoulder. Click on save and Sync. Now your stream cannot be accessed without a password, but a stream with the name of your camera that you specified in Step 2 will still be listed on the site. This is presumably for easy access to you as a user.



View your video stream online

Step 4: You can try out the live stream right away. Go to easyspyfx.com and search for a camera using the pin number that you received in Step 1. A page will open which will give you code for embedding the stream from the video cam on any web site or blog and a tinyurl link to directly access the video stream online, or your mobile phone if it supports viewing video on a web site over GPRS. If you entered a password in Step 3, you will be asked to key in this password before you can start viewing the video.



Password protecting your video stream

Step 5: You can archive snapshots of the video stream as image files. The images will be stored on the Easyspyfx server. This feature is there to keep a track of what is going on in the area under surveillance if you are not constantly monitoring the video stream. Go to `Camera Settings > Archive`, and check the `Archive On / Off` checkbox. There are a number of interval options available, but you cannot specify your own. Unfortunately, there is no motion detection mechanism for this feature.

50 **DIY**
Update your iPod without iTunes across platforms

52 **Social Networking Overdrive**
From extensions to mobile apps. A look at different ways to connect different

Gorillapod

A Gorillapod is a must-have travel accessory. The Gorillapod is a range of tripods manufactured by Joby, which has a tripod head attached to three flexible legs. These can be placed on uneven surfaces, wrapped around poles, hung from branches and even attached to windows in moving vehicles. Apart from cameras, there are Gorillapods available for PMPs that let you use the tripod as a stand for watching or recording. There are also many sizes available. You can order one for anywhere between Rs. 2,000 to Rs. 7,000 depending on the kind and size of Gorillapod you want

Garmin Zumo 665

Fresh from CES 2010, the Garmin Zumo 665 Motorcycle GPS is a bike-enthusiast's wet dream. Even if you totally ignore the GPS capabilities of the device, which has an impressive line up of traffic watch, turn by turn guidence and NavWeather for North America, the fact that this is a waterproof device that also streams radio, plays back mp3s and audiobooks is enough to get any biker salivating. The Zumo 665 is priced at a Jaw-dropping $999 (Rs. 45,280), but then there have been i-Phone apps that cost as much

Jetboil Flash

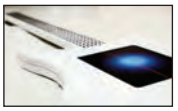
No more waiting till you're grey for water to boil on your outdoor adventures. The Jetboil Flash Gold is the compact, ready to go cooking solution for you. It gets water to boil in under two minutes, and has a tripod base stand for stability. The canister can be used as the utensil for consumption itself, and there is a colour indication for when the food is ready. The fuel comes in proprietary containers that you'll have to get from Jetboil. Showcased here is the Gold version. The Flash comes in Violet, Sapphire and Carbon as well. You can pick up one of these for Rs. 4,500

Kodak Playsport

Ever worried that your camcorder is not as extreme as you? Scared of sand particles in the ports or water ruining the screen? Fret no more, the Kodak Playsport is just the thing for you. Waterproof for upto three metres (10 feet), this recorder stores your most extreme memories at full 1080p resolution. There are a bunch of nifty features just for adventurers too, a Glare Shield for better clarity and a grabber for obraining images from video. There is also built in Facebook and Twitter functionality, so you are always connected no matter where your adventures take you. The device costs a measly Rs. 6600, but picking one up can be a problem because Kodak is always out of stock

Panasonic DMP-B15

Pick up the Panasonic DMP-B15, and you will be in the small club of people who can watch Blu-Ray discs on the go. The world's first portable Blu-Ray player doubles up as a regular Blu-Ray player as well, with ports for interfacing with HDTVs. There are also straps for attaching the device to the back seat of a car. The screen of the player is pretty small, a shade under 9 inches, but the player can still throw out videos in 1080p HD resolution through the HDMI port. You can pick one of these up at the launch price of Rs. 33,000



Misa Guitar Surface
Misa Digital Guitar surface is an electric guitar with buttons instead of strings and is based on Linux

Cantata
The Cantata is a digital preamp/DAC that includes a built-in CD player and networking for external NAS drives or computers

iPod Survival Guide

The iPod is one of the most sought after PMPs around. We look at alternatives suites, especially if you use a non-proprietary OS and don't have iTunes

Nishith Rastogi
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If you plug your iPod into a USB port and use its Disk Mode functionality, it gets recognised as a mass storage device where you can still copy your files onto it, but it won't play them. This happens because iPod uses a song Database called the iTunesDB to recognise the files stored in it. If you explore your iPod contents under the disk mode you will notice many folders named in a sequence such as F00, F01 and F02 with randomly named MP3 files.

If you manually transfer a song from your computer to your iPod, this directory structure is destroyed and the files are stored in a rather random pattern. This is precisely why you need an iPod manager (iTunes) to share music between your iPod and PC. The reason for such a distribution is not officially disclosed and the guesstimates run from avoiding casual piracy to speed and efficiency gains.

Many users find iTunes too bloated for their needs and hence we now explore a couple of alternative iPod managers for both Windows and Linux Platform.

MediaMonkey

MediaMonkey is available in the Free and Gold version. The Free version is amply able and the Gold version only includes minor enhancements in the area of Disk Burning, MP3 encoding and Folder Monitoring.

It supports syncing content with all generations of iPod including the very latest iPod Touch (1st, 2nd and 3rd Generation) and the iPhone (2G, 3G and 3GS including the 3.x firmware). One interesting feature of note is that it can level volume of the tracks while syncing and will hence play at one normalised volume even on your iPod. MediaMonkey also has a dedicated feature for downloading and managing your podcast subscription. It can even sync it with your devices. One limitation regarding iPod support is, as with many other media players, that it needs iTunes installed on your system to detect your iPod (especially iPhone/iPod Touch) as it uses the same device drivers. You don't need to use iTunes, but it should be merely present on your system.

One fun feature it boasts of is "Party Mode" where basically your player runs in kiosk mode. So your guests can play/request songs themselves without modifying your playlist, supporting this feature is the Auto-DJ, which automagically selects tracks to play once the playlist runs out.

If you own a collection of more than 5,000 songs collected from various sources you have obviously faced the problem of incomplete ID3 tags. MediaMonkey handles this in two awesome ways, one is auto-fetching of missing ID3 tag information from internet databases including CD covers. The second way is manual update, MediaMonkey has a full featured tag editor with a very intuitive interface. Complete ID3 tag information is very important from the Point of view of playing your music on your iPod because it stores and searches them based on the meta data only as your directory structure is eliminated.

In terms of playback support MediaMonkey doesn't disappoint one bit. It belongs to the class of players which play anything you throw at them from MP3 to FLAC and everything in between. So if you are looking at a Windows-based alternative to replace iTunes as your iPod manager and media player, MediaMonkey offers itself as a rock solid alternative with loads of options of customisation via plug-in support. It's feature rich and has a snappy interface even with dealing with huge collections. If you can live with limited disc burning and ripping support, look no further for an alternative to iTunes.

A rock solid Windows based alternative for iTunes with a clean and intuitive interface

SongBird

This is a cross platform solution and works well on both Linux, Windows and even Mac. It has been made on the same core as Mozilla Firefox, and that itself is reason enough to be excited about this

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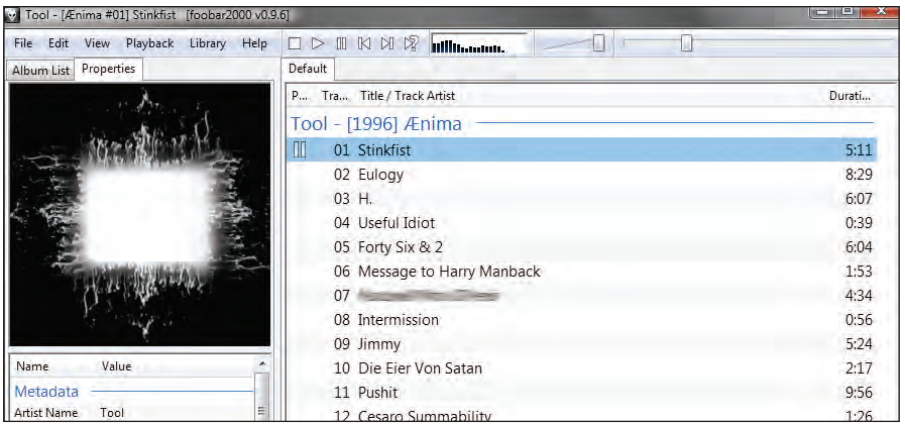
product. It is an audio player with the functionality of a web browser too, which has been utilised properly to provide you with augmented information about your current playing file and a music store.

It's a complete feature by feature match for iTunes and more. Like most modern day players, it support skins and plug-ins, a function which seems obvious, given its roots in the Mozilla's XULRunner framework. Nearly four years into development it has become a player of choice today for users on all platforms.

iPod support comes in form of an add-on, which is also currently one of the most download add-ons for songbird. Functionality includes syncing and transfer for your music as well as videos. It can also sync your playlist between your iPod and hard disk based collection. Support for firmware 2.x and above on iPhone/iPod Touch is a little sketchy and will require a jail broken version.

To sum it up, we'd say it's a stable feature-full player with active development and immense community support, but nearly as heavy as iTunes in terms of resource usage.



Foobar - strong competitor to MediaMonkey and extremely customisable

Amarok2

Available for the Linux platform, Amarok2 is a KDE-based music player with an interface to die for. It is widely regarded as the best Audio Player around in terms of interface and features across the gazillion choices in the Linux and Windows world. If you want to sync the latest iteration of iPhone/iTouch, it must be jail broken for Amarok2 to support it properly.

Foobar2000

It prides itself at being the most customisable audio player on the planet. You can turn Foobar2000 into a full-fledged music manager or ultra-light bare bone music player via add-ons and plug-ins. Its feature rich, but just that setting up Foobar2000 with correct and complete customisation can be a bit of a pain for a new user.

Winamp

Considered as the *de facto* alternate media player for a Windows-based system, it supports music transfer, Via its iPod plugin (ml_ipod). Winamp though like iTunes, is extremely bloated and very heavy on system resources for a media player. The interface can also be slightly overwhelming for a new user.

Floola

The simplest of all iPod managers mentioned here, it runs as a single executable file. It's so light on system resources that it can even work on old Celeron 400 MHz systems. If you have a netbook and all you want to do is share music with your iPod, floola should serve as a good alternative. Support for newer iPods is an issue.

GtkPod

This one's a Floola for Linux. One point of note is that after editing your `/etc/fuse.conf` by removing # from `#user_allow_other` and installing a few libraries (`gvfs gvfs-backends gvfs-bin gvfs-fuse libgvfscommon0 ifuse libgpod-dev libgpod-common libiphone-utils libiphone0 python-iphone libplist++1 libplist-utils python-plist libusb-1.0-0 libusb-1.0-0-dev libusbmuxd1 usbmuxd`) this is one of the few Linux software that can support iPhone and iTouch transfer and sync music.

As Firefox add-ons add functionality to the core Songbird player, this one adds iPod support

	a	b	c	d	e	f	g	h	i
A		4	5	9	8	6	1	2	
B	8		9	7	2				5
C	7	6				5			4
D			6		5	7		4	9
E			4				6	7	
F	9	7	8	6	4		5		2
G	4	5	3			8			6
H	6	8			7				3
I		9	7	5	6	3	4		

Facebook, twitter, MySpace, LinkedIn! Update all your social networks in one go. Use this useful little web service called ping.fm

StayFocusd, a Google Chrome extension lets you block social networking sites if you prefer to

Social networking overdrive

From teenagers scrapping and poking, to a useful enterprise tool, social networking has come a long way

Siddharth Raman
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Today, social networking isn't just about reconnecting with old friends – it's a powerful medium of communication for personal use, business communication and entertainment.

There're many who simply go online to access their social network. However, with the API out, several users prefer desktop clients. A web browser can be extremely distracting. For those who're on the go, sites such as Twitter and Facebook have mobile versions that can be easily accessed on your mobile internet browser.

You'll never be done counting the number of networking sites online!

The iPhone, of course, offers a wide range of applications for the same. The other ways you could connect is through your web browser, your IM client, and your homepage (read iGoogle or similar).

If you insist on using the web but find it too cumbersome to access, www.power.com gives you a one-stop destination through which you can access Orkut, Twitter and LinkedIn. It also allows you to access hi5 and MySpace. Desktop users would prefer something like Seesmic Desktop. The client runs on Adobe Air, and you can download it from www.seesmic.com. Though it also has a web counterpart called Seesmic Web, the Desktop client seamlessly integrates Facebook and Twitter allowing you to update and keep track of others. It allows for multiple accounts, profile views, and other time-saving features like auto-complete.

While on the topic of Twitter, the other extremely popular Twitter client is TweetDeck. Again built using Adobe AIR, it also allows multiple account management, and features quite similar to Seesmic. TweetDeck also allows you to update your LinkedIn status, besides displaying local trends.

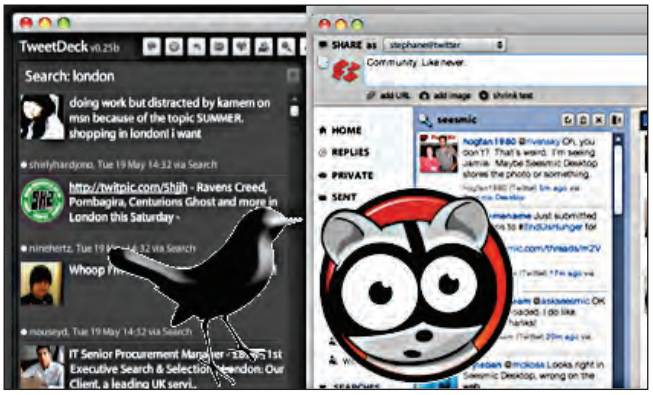
Interesting functions with tools such as Power include search and automatic URL shortening. They also have their own respective photo integration that allows you to instantly upload photos and provide links. The drawback about having Twitter clients with Facebook integration is that most users link their Facebook and Twitter updates, so you usually end up seeing redundant updates.

Mac users have the option of Tweetie for Mac or the Mac Lounge among other desktop clients for Twitter. Tweeple should also try out Brizzly (www.brizzly.com). It has nice features such as grouping and an interesting mute feature where you can mute those whose updates you temporarily don't care about (for example, someone live tweeting a conference you have no interest in). You can also update Facebook from the same interface.

On the desktop front, Scrapboy is quite useful. It links Orkut and Facebook (among others) and allows you to access your groups, see updates, and browse walls/scrapbooks. Apart from instant notifications, a useful stealth mode, it also has a P2P option allowing you to exchange files with friends. It's a 7.6 MB download available from www.scrapboy.com.

Facebook has also launched an official application called the Facebook Desktop for Adobe AIR. The good part is that it merely serves as a browser for Facebook. So you can use all of Facebook's features without opening your browser. Another cool desktop application is the Facebook – Photo Uploader launched by Adobe, and allows you to chat and upload photos.

Among Desktop Clients, however, Digsby steals the cake. For those who use social networking primarily to stay in touch, the multiple IM client also has social networking options. Apart from integrating MSN, Yahoo!, GTalk and Facebook Chat (among others) and

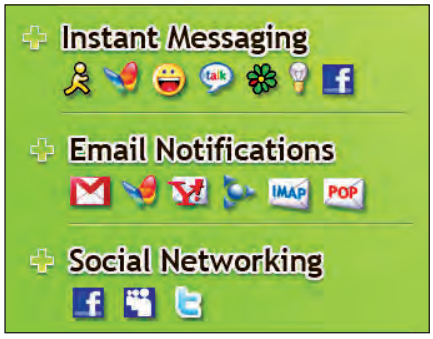


Seesmic Desktop vs. TweetDeck

managing multiple email accounts, it also allows you to receive updates and send status messages on your Facebook, Twitter, MySpace and LinkedIn accounts. It has a real-time Newsfeed box with notifications. Digsby (www.digsby.com) is more than just an application for social networking. Its lack of features such as Lists and Search is compensated by its email and chat features.

Facebook Notifier, fbQuick, Scrap Notifier are some unofficial apps that notify you. An application such as Growl for Windows or Snarl could integrate most of your networks.

Of course, the above Desktop Clients for various networks are merely some among several. Depending on your level of functionality, there are many clients (especially for Twitter) out there that you could tweak and customise to suit



Digsby, one stop for all your networking online

your purpose. For several users, the amount of RAM an application consumes is a major factor while weighing its merits.

Moving over from the desktop, there're several users who spend hours online browsing web sites. Hence, a browser add-on should fit the bill nicely. For one, there's the Facebook Toolbar for Firefox. Developed by Facebook (http://developers.facebook.com/toolbar/), it allows you to search Facebook from anywhere and get notified of new pokes, friend requests, messages, invitation, wall posts, profile updates, photos and everything else. You can also open the Facebook Sidebar with a click of an icon to chat with those online. Possibly the most useful tool for compulsive content sharers is the option to share on Facebook the webpage you are viewing currently.

For Browser add-ons, we recommend trying out either Chrome or Firefox. Though Chrome extensions are a relatively newer addition, and may not have the varied options that Firefox does, they're worth a try. For Firefox add-ons, go to https://addons.mozilla.org/en-US/firefox/.

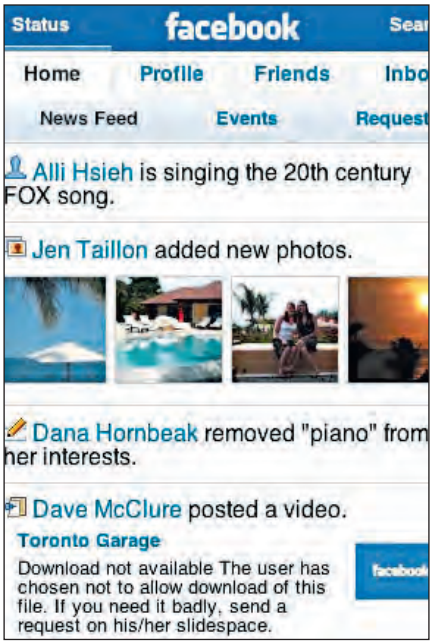
Echofon (http://echofon.com/twitter/firefox/) is by far our favourite when it comes to browser based Twitter clients. With three windows (one for timeline, one for mentions and direct messages), it also has multiple account support. It rests at the bottom of the browser with an unread message count and has a pop-up feature for new messages.

Yoono is another multiple social-networking one-stop destination that allows a sidebar extension to Firefox. It allows you to update and monitor Facebook, Twitter, MySpace among others and has IM features allowing you to add Yahoo!, Gtalk and MSN.

Check http://chrome.google.com/extensions for social networking extensions that you can plug into Google Chrome.

For those who use iGoogle or the Google Desktop application, there are also widgets and gadgets that you can use to view Twitter, Facebook and other applications. Several IM clients such as Meebo and Imo.im also allow you to integrate Facebook chat and Twitter updates. Gmail has TwitterGadget (www.twittergadget.com) where you can access Twitter right from Gmail. There's a Facebook gadget that works on iGoogle and Gmail (http://www.brianngo.net/ig/facebook.xml) (though not an official one). Orkut, being a Google product integrates quite well with Gmail with options such as Orkut birthdays and more.

After browsers and desktop apps, there's the mobile. Facebook has two mobile sites – one for normal mobile browsers (m.facebook.com) and the other for touch-enabled phones (x.facebook.com). Similarly Orkut, Twitter and LinkedIn have mobile versions. The typical URL for most web sites with a mobile friendly version is m.<web site>.com. So you have m.twitter.com, m.orkut.com and so on. With Twitter, there are also other sites which have a better functionality when it comes to accessing them via mobile. Few examples include http://dabr.co.uk, http://m.slandr.



Connect on your handset with Facebook's mobile site

net, http://m.tweete.net among several others. These offer some functionalities that the mobile Twitter site does not, such as the ability to disable images from loading and present links as plain text. They have standard features such as bookmark as favourite, retweet and reply.

With Mobile apps, it's a harder list to gather. There's the standard one offered by companies themselves. An official Facebook app, for example, comes built-in with certain Nokia phones. Orkut also has a mobile application. For Twitter, there's a huge market with loads of competition each vying for the top space. You'd have the best of choices if you owned an iPhone since most networks have an app custom built for it. There're also several third-party applications. Most apps, however, are platform dependent. Fring seems to be a popular one across platforms.

On the whole, the options out there are several. The number of ways you can access your favourite social networking site are numerous. We'd recommend trying one of every kind. If at home, use a Desktop client, if at work, use an inline browser application or a web-based offshoot, and while travelling, try both the mobile application and try accessing it via mobile browser. See which suites you the best. It's not just about convenience and customisation, it's also a lot of fun.

Reaching out to the skies

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Did you know the world's tallest building, the *Burj Khalifa*, and mobile phone company Samsung have a connection? Skyscrapers such as the *Burj* have come a long way from The Home Insurance Building, constructed in 1885 and commonly referred as the first skyscraper, which was merely 138 feet in height and had ten stories. Today, Burj Khalifa is the tallest freestanding structure made by man with a staggering height of 828 metres. If the name Burj Khalifa sounds unfamiliar, that's because Burj Dubai at the last moment was renamed to Burj Khalifa in the honour of the ruling president of Abu Dhabi, Sheikh Khalifa bin Zayed al Nahyan who provided a $10 billion bailout for the financially troubled Dubai government.

There's no exact definition to what qualifies as a skyscraper and is more like a variable with time, and geographic region as it's dependent parameter. Currently, in the US as a matter of convention, buildings greater than 150 metres (approximately 45 stories) are classified as skyscrapers. As you'd know, a building in India with a height of over 100 metres would be clearly distinguishable from its surroundings and would earn the title of being a skyscraper.

The ability of living and working 100 stories above the ground present its own set of unique challenges ranging in domain from construction to plumbing. Here's a look at some of the problems faced by designers and civil engineers while constructing a skyscraper and their solutions.

Construction

Given their height, skyscrapers either sink in to the ground, or collapse due to instability, and hence they are built around a central frame generally made of steel. Think of the steel frame as a three dimensional lattice of interconnected steel bars on which the weight of the whole building rests. This eliminates the need of the load bearing shear walls, and instead can be replaced by curtain wall generally made of glass giving massive weight advantages. This is the main reason to why skyscrapers have *glass* walls.

Most modern (post 1970) skyscrapers use the "Tube Frame" which was introduced by Fazlur Rahman Khan. This was done to resist lateral forces of wind and storm. Here, the whole building acts like one hollow beam positioned perpendicular to the ground surface. The exterior of the building is reinforced with intersecting spandrel beams.

A major challenge in building a super-heavy skyscraper is creating a stable foundation for the building. For example, consider the Burj Al Arab, famously known as the yacht shaped hotel in Dubai. It took close to three years to reclaim the land from the sea and form the foundation. The rest of the building was completed in approximately the same time frame. To maintain stability, 230 concrete pipes (each 40-metre long) were drilled in to the ground.

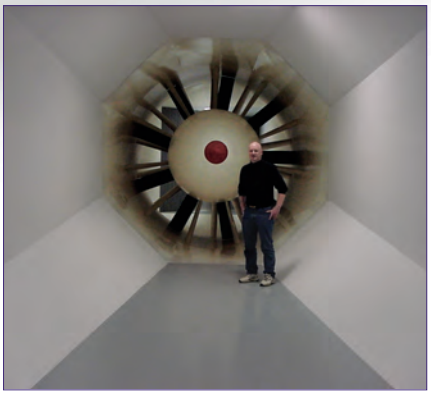
Similarly, the Taipei 101 tower built in earthquake prone Taiwan has 382 of such concrete pipes (each of which is 30 metres in height and 1.5 metres in diameter) drilled into the ground to secure the building from earthquake. Approximately 15 months were devoted to the construction of this foundation. It was the tallest building at the time of its construction.

In the case of Burj Khalifa, there were 192 pipes with lengths exceeding 50 metres each. Reinforced concrete forms the main structural system for the building, a total of 3,33,000 cubic metres

of concrete is used for the building, by comparison a typical water tank in a household is of 1 cubic metre capacity. Constructing this massive building took a total of 22 million man-hours.

The climate of the construction site provided added challenges due to the heat in the daytime with temperatures exceeding 50 degree Celsius. Therefore, the concrete was poured during the night (the air is much cooler and the humidity is higher, which is essential for curing the mixture evenly) mixed with ice and was pumped to a staggering height of 601 metres creating a world record of its own. Previous record for concrete pumping was held of the *Riva del Garda Hydroelectric Power Plant* in Italy in 1994, when concrete was pumped to a height of 532 metres. At the peak of its construction, the *Burj Khalifa* was adding a story to the structure every three days and hence it was absolutely essential for the concrete mix to not form any cracks and cause any delays.

Constructing structures so far above the ground faces serious wind problem. To give an example, the wind velocity at the top of the *Burj Khalifa* can be thrice the velocity at the base. Given the climate of Dubai, wind speeds at the base itself can exceed 50 kilometres per hour. The Chicago-based architectural firm Skidmore, Owings & Merrill, who were responsible for the design of *Burj Khalifa* were aware of this challenge and to counter it they had contracted a Canadian-based wind engineering firm RWDI, who was responsible for checking if the various designs of the building made by the architects were aerodynamically efficient. According to Wayne Boulton, GM (Wind Energy) at RWDI, "We constructed a scale model and put it in a wind tunnel. In the wind tunnel, we are able to test a number of different wind speeds and directions. We can test the pressure you would get on the surface of the building under normal conditions and also under more extreme events."



Extreme engineering solutions like Wind Tunnel simulations, generally reserved for race cars, are used in the construction of Modern Day Skyscrapers

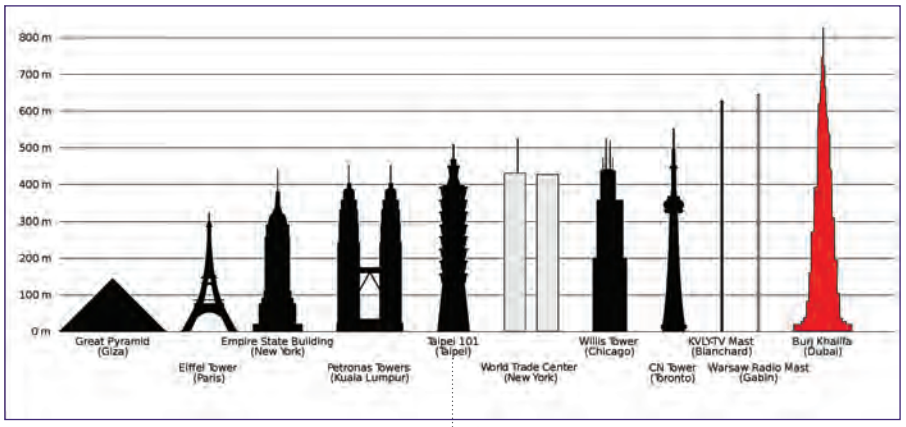
Safety

With more than 10,000 people living in a confined space of a modern day skyscraper safety becomes an important issue. There are two aspects for it – one is protecting from man-made mishaps such as fire and electricity, which is relatively easier to tackle. The other is protecting a structure more than 500 metre above the ground from forces of nature such as typhoons and earthquakes. We shall look at two counter systems to get a feel of structural safety measures in skyscrapers.

The Taipei 101 Tower sits merely 660 feet from a major fault line in Taiwan, or in simple terms is very prone to earthquake damage. To counter this, the construction engineer first wrapped the entire building in a massive steel cage of immensely welded steel columns that is designed to flex and bend to absorb seismic energy. The engineers proclaim that this can withstand the impact of the most powerful earthquake in 2,500 years.

A second counter measure is the inclusion of a Tuned Mass Damper (TMD), which also prevents damage from lateral forces such as strong wind. This innocent sounding device is actually a 730 ton ball suspended by eight solid steel cables. This device acts like a giant pendulum and counters the motion of the building due to seismic and atmospheric forces. It was designed and constructed by firm called Motioneering. It can move to a maximum of five feet in any direction and is surrounded by a protective bumper ring to prevent it from swaying too far.

Another example of the installation of a Tuned Mass Damper is an oil based hydraulic system in the Citicorp Center in New York. The hydraulic system adjusts the position of the a 400-ton concrete weight block located on one of the top floors and in effect adjusting the entire weight of the building from one side to another. A powerful array of computers and sensors monitor the wind forces around the building and generate the stimulus for the movement of the block.



A graphic representation of Skyscraper heights along the ages

Burj Khalifa also has the provision of pressurised, fire-proof, structurally reinforced and critically air-conditioned refuge chambers located after every 25 floors, so in case of any disaster, natural or man-made disaster occupants needn't climb down more than 160 floors to find safety.

Another unique challenge is the skyscraper causing earthquakes in the surrounding region. Many had believed that the Taipei 101 tower had reactivated a dormant fault line. In order to counter this argument the designers and construction contractor of the tower had ensured that they remove equivalent amount of soil from the foundation as the

weight of the whole tower, a figure close to a staggering 7,00,000 tons in this case.

Mobile connectivity

It's not rare to see lots of people standing next to windows or in the open lobby in multi-storied building hooked to their mobile phones because of poor signal strength in their offices. Imagine this problem at the scale of *Burj Khalifa*. The engineers at task have handled this problem in style. Two local companies Du and Etisalat have provided complete connectivity inside the building including elevators and lobbies at speeds exceeding anywhere else in the region. The building is equipped with state-of-the-art HSPA+ 3.5G mobile connectivity that offers speeds up to 21 Mbps for download and 11 Mbps for uploads.

Elevators

One of the primary things that make a skyscraper practical is the inclusion of elevators. Choosing the number, size and configuration of elevators is a major decision because increasing the number of floors in a building leads to more occupants who need more elevators to carry them, but elevators occupy a lot of valuable floor space and hence decreasing occupancy potential.

The Burj Khalifa, not surprisingly, has the fastest elevator in the world and can travel at a peak speed of 64 kmph – faster than some of the first aircraft. At this speed, you can descend more than 4 stories in a single second. Even the relatively slow elevators in Taipei 101 can transfer you from fifth to 89th floor in just 37 seconds.

Most skyscrapers in order to save space and increase capacity use double-deck elevators where via the same elevator shaft two floors are serviced at the same time. Obvious disadvantages include increased travel time as passengers on both floors have to stop even if the elevator needs to stop at only one floor. *Burj Khalifa* is also one of the few buildings in the world in which certain elevators can be used for speedy evacuation in case of fire as opposed to conventional scenarios where elevator operation is stopped during fire. The building service/fireman's elevator will have a capacity of 5,500 kg, compare this to the elevator in your building which generally has a capacity of 800 kg or less.

Maintenance

Simple and trivial as it may look, maintenance work post-construction in itself is a major challenge. Take the example of cleaning the windows in *Burj Khalifa*. To accomplish this seemingly simple task, a system worth more than $8 million (approximately Rs. 40 crore) is installed in Burj Khalifa by an Australian company called Cox Gomyl. The machinery was manufactured in Airport West and is operated in manned mode for the lower stories and completely unmanned after that. It takes about 3 months to complete the whole building, so yes, as you can imagine, it is dirty by the end of a cycle and the system is operated continuously.

So you thought cleaning your windows was tough?

Horizontal tracks are fixed on the exterior via which small transport hubs move carrying workers and equipment, when not in use they are tucked away out of sight to maintain aesthetics. The tracks are located on the level number 40, 73 and 1,009. Each track is equipped with a 1.5 tonne bucket machine which can slide over the tracks horizontally and then will descend vertically using strong cables to cover the whole building.

Aesthetics

A seemingly unimportant consideration on the surface, but having the tallest building in your country has become an issue of national pride. It is similar to hosting the Olympics or Commonwealth games and exhibits the technological and economic advancements of your nation. The task of ensuring that such a symbol of national pride is aesthetically appealing is taken very seriously by the designers and can cost a major fraction of the total time and money spent on the project.

For example, there are over 1,000 pieces of art that will be on display inside the *Burj Khalifa*. The lobby alone boasts of 196 cymbals constructed out of bronze and brass alloy, each representing one nation of the world. They are plated by 18-carat gold and individually produce a distinctive sound when struck by dripping water, intended to mimic the sound of water falling on leaves.

On the outside stands an electronically controlled fountain designed by WET Design (the California-based company whose other installations include fountains at the Bellagio Hotel Lake in Las Vegas) at a cost of $217 million (over Rs. 1,000 crore). The fountain is fitted with over 6,000 lights, each of which can be controlled electronically and has 50 coloured projectors. The 275-metre long fountain can shoot water up to a height of 150 metres (that is over 40 stories, so yes if you are reading this article anywhere in India, the fountain can drench you on your rooftop) is a technological marvel in itself.

The race to build the tallest and strongest includes the use of wind tunnels, material research which ironically involves use of nano particles to form stable mega structures, sophisticated digital monitoring systems, automated cranes and so on. As cities get ever more crowded the next natural step is to construct building over 1 kilometre in height and you might not have to hold your breath far too long for it since the Saudi Prince Al Waleed bin Talal is already on the job. d

If you don't know why this is here, turn to page 109 to start playing Digit's Crack The Code contest
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160 kmph
The speed at which it becomes possible for most F1 cars to drive upside down in tunnels, due to high downward forces

Race tracks
In the Monaco Grand Prix, manhole covers had to be welded to avoid dislocation due to the downward force of the cars

There's more to F1 cars than powerful engines. Aerodynamics, gravity and smart design work wonders on the track

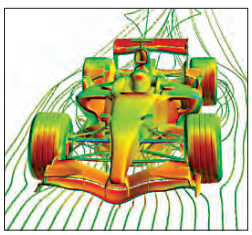
F1 for speed

Mohamed Rameez
readersletters@thinkdigit.com

The modern formula one (F1) race car has a lot in common with an advanced jet fighter. A majority of these common features come from the aerodynamic considerations that go into its design.

To truly understand aerodynamics in F1 cars, we'll have to look at the various forces, aerodynamic and otherwise that act on an F1 race car (or for that matter, any moving body in the atmosphere). One of the largest forces that act on an F1 race car is its thrust - the driving force supplied by the engines, through the wheels, that causes it to move forward (acceleration). In an F1 race car, this force is often several fold greater than regular cars, although the total weight is much lower than a road car.

The second force, known as drag, acts in the opposite direction to its motion (backward) and is due to air resistance. A core function of aerodynamics in F1 race cars is to minimise this drag force. The weight of the car, caused by gravity is the third force and acts in a downward direction, to keep the car to the ground. A fourth, very important force, is the aerodynamically created downward force, which acts more or less in the same direction as the weight of the car, to keep it pressed downward. In modern F1 cars, the down force can reach magnitudes as high as 3.5 times the weight of the car.


Airflow over a Renault formula 1 race car, generated using the software Fluent 6

While the driver can vary thrust by changing gears and revving the engine, the weight is constant. The drag and downward force are largely a function of the speed of the car (and hence not directly under the driver's control).

Function of aerodynamics

In the 1960s, with stagnation in internal combustion engine technologies (all path breaking developments had already been made, with further developments leading to only minor refinements), new ways had to be explored to improve the performance of a race car.

One of the first steps in this direction was the realisation that the weights of the cars could be further dropped (allowing them to become lighter and hence faster), while the function that weight served, of keeping the car pressed to the road during curves and slopes, could be passed on to aerodynamic forces. The result of this line of thought was to fit wings onto F1 race cars. Though similar in many ways to aircraft wings (in their cross sectional geometries), the wings in F1 race cars are mounted upside down, (in a manner of speaking) to create down force rather than lift (the upward force that helps an aircraft fly).

Alongside, the overall geometries of an aircraft were also altered to reduce drag, so that the total force causing it to accelerate could be increased. The result was rapid and explosive development in these sectors often leading to catastrophic disasters, causing the racing regulatory authorities to follow up with strict regulations, in the interest of safety. The 1970 racing season witnessed a new set of regulations, on the size and location of wings in an F1 race car. Ever since, the aerodynamics have played a large, often pivotal role in F1 race car

design, characterised by regulations for safety considerations, quickly followed up by clever innovations by designers. Today, the more popular F1 race cars spend upwards of $100 million on aerodynamic design, with up to $50 million spent on construction of wind tunnels, much in the same way as the design of modern aircraft.

Today, the core function of aerodynamic considerations in the design of F1 race cars is to:

- Reduce drag, so that the forward acting force, and acceleration can be maximised.
- Increase down force, so that the car is highly stable and can take tight corners by hugging the ground.

Let us take a look at how it is implemented. The different aerodynamic components of an F1 race car are as follows:

Wings

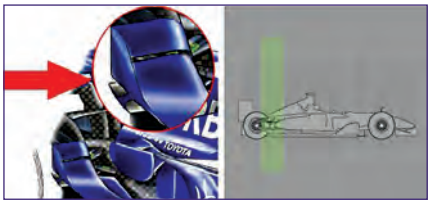
The wings of an F1 race car are located near the nose and toward the rear are the most important aerodynamic components of the car. Their function is to provide a downward force, that causes the car to hug the ground. The front and the rear wing together provide more than 50 per cent of the down force between them and hence play a crucial role in stabilizing the car. In many cars, these wings are movable by the driver, to a large extent, so that he has control over what component of the down force is provided by each one individually.

The Diffuser

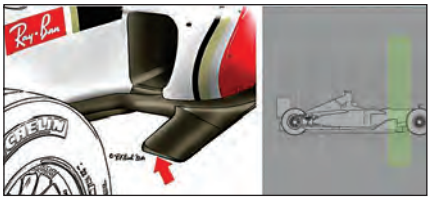
A component found towards the rear bottom of the car, it is curved slightly upward and functions to reduce the turbulence in the airflow below the car. The final effect is that the airflow below the car, being less turbulent than the one above, is now at a higher speed, and hence lower pressure (Bernoulli's principle by which aircraft wings create lift). This causes the car to hug the track (due to more downward force).

End Plates

The end plates, found perpendicular to the front wings at both sides guide the air smoothly along the sides of the car, so that turbulence and drag is minimised.



Flip ups on a Williams Formula 1 race car



Turning Vanes

The Bargeboards

Although these have been done away with since 2009, the function of bargeboards when they existed earlier used to guide the air sailing past the front wheels into the engine radiator intakes for engine cooling.

While the above mentioned are the most important individual aerodynamic components, many smaller ones such as flip ups, turning vanes and nose cone holes exist over the geometry of the car as per individual requirements. While flip ups are controllable components used to increase down force, a turning vane produces extra turning force by redirecting airflow. Nose cone holes serve to reduce shock and hence drag.

Apart from specific aerodynamic components, almost every part of an F1 race car is designed with aerodynamic considerations. The whole body is designed to act like an air foil, providing further down force. Engine intakes and exhausts are designed to avoid turbulence. Even the wheel surfaces are designed to avoid turbulence.

Formula 1 race car aerodynamics has been a constant race of one-upmanship between the regulators, with safety concerns in mind and the designers who immediately come up with clever innovations to avoid reduction in aerodynamic performance. With neither side likely to give up anytime soon, we can expect a lot in the way of development in F1 race car aerodynamics in the future.

66 **Netbook test**
We've looked at some of the most popular netbooks this month. Find out which one suits you

72 **Bazaar**
Exciting gadgets and gizmos reviewed this month

Storage is no longer about boring boxes. There's style as well as performance. We've tested a whole range of external storage solutions this month

Appetite for consumption

Nimish Sawant
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Gone are the days when external memory devices were boring to look at. They've now become a lifestyle product of sorts with companies trying to outdo each other not only in increased capacity, but also improved aesthetics. Portable drives are getting more compact and sleek as compared to their previous generation counterparts. Form factors are also reducing with the passing of time. The comparatively bulkier desktop hard drives are now available in stylish rectangular cases.

With digital data encompassing all aspects of our life, the need for storage other than the static internal hard drive has risen. With memory becoming cheaper as time passes, the storage capacity has improved by leaps and bounds. Not only does it improve portability, it also makes a lot of economical sense to have some sort of external hard drive for purposes like backing up important data.

Portable hard drives

Unlike internal storage devices, with portable hard drives even form factor and design aspects matter. This segment comprised compact, sleek and stylish hard drives that provide portability which is very important for individuals with heavy data storage requirements. With more and more people archiving their files digitally be it music, documents, photographs or videos, the market for external hard drives will always be on the rise. None of the portable hard drives required any external power connection.

We got around nine compact drives to test in this category. Western Digital's (WD) Passport series of external hard drives all have a similar design. We tested

Photography: Jiten Gandhi
Imaging: Vijay Padaya

the 500 GB WD Passport Essential, 500 GB WD Passport Elite and 750 GB WD Passport Essential SE. The Essential series is rather squarish as compared to others. The 750 GB hard drive is thicker than its 500GB counterpart. The WD Passport Elite comes in metallic red colour with a USB dock, unlike all the other drives. We feel that a USB stand is just a gimmick and doesn't really help much apart from giving the drive more stability. An interesting aspect of this drive is the capacity gauge which shows the amount of free space inside the drive. All the WD drives come with an inbuilt software called WD SmartWare which lets users password protect their drives as well as automatically backup data. Visual animation, showing the transfer in process is an interesting feature.

BEST PERFORMER
digit
FEBRUARY 2010

Transcend StoreJet 25M

The interface for all the hard drives including WD's drives is the same ie. mini-USB. Only the Iomega eGo hard drive has two FireWire interfaces in addition to the mini-USB port.

The 300GB Iomega eGo drive has an interesting form factor in the sense that unlike other drives, it has cornered edges. Due to the white glossy finish, the drive tend to be slippery, so care needs to be taken. The presence of FireWire 400 and FireWire 800 port give the drive two additional interfaces to transfer data.

The other Iomega drive is the 250 GB Iomega Prestige. It has a brushed metal finish with the Iomega logo embossed onto it. A tiny slit in the centre

Realising the CES dream
Sony releases TransferJet, a wireless Memory Stick showcased at CES 2010

Lightning fast
Light Peak is Intel's codename for a optical technology that can trasnfer data at speeds upto 10 Gbps

PORTABLE HARD DRIVES									
BRAND	**WD**	**WD**	**WD**	**BUFFALO**	**TRANSCEND**	**IOMEGA**	**IOMEGA**	**SEAGATE**	**A-DATA**
Model Name	My Passport Essential SE	My Passport Elite	My Passport Essential	MiniStation	StoreJet 25M	Prestige Portable	eGo	FreeAgent Go	Nobility
Model Number	WDBAB-M7500ABK	WDBAAC-5000ARD-NESN	WDBAAA5 000ABK-NESN	HD-PX 320/ BK-AP	TS500GSJ25M	LPHD-UP	RPHD-TG	ST905003 FAA2E1-RK	NH92
Price (Rs.)	Rs. 10,999	Rs. 6,999	Rs. 7,249	Rs. 9,000	Rs. 4,350	Rs. 3,199	Rs. 3,899	Rs. 5,500	Rs. 2,900
Features									
HDD capacity (GB)	697.98	465.11	465.11	297.48	465.76	232.88	298.09	465.76	298.09
Interface	USB 2.0	USB 2.0	USB 2.0	USB 2.0	USB 2.0	USB 2.0	USB 2.0 / FireWire	USB 2.0	USB 2.0
Rotational Speed (RPM)	5400	5400	5400	5400	5400	5400	5400	5400	5400
Buffer Size (MB)	8	8	8	8	8	8	8	8	8
Performance	**76.39**	**75.81**	**72.36**	**72.41**	**78.74**	**74.92**	**77.45**	**67.61**	**78.68**
Synthetic Tests									
HD Tach 3.0.1.0 (8 MB file)									
Average Read (MBps)	34.4	29.6	30.9	35	33.2	34.9	34.9 / 39.7	28	32.8
Average Write (MBps)	24.3	24.3	23	25.3	30.2	30.6	25.9 / 5.4	23.9	30.6
CPU Utilisation (%)	6	4	2	3	4	6	4 / 1	4	5
Random Access Time (ms)	17.3	16.4	16.9	26.5	18	15.9	18.4 / 18.8	21.8	17.1
Read Burst Speed (MBps)	35.1	35.2	37.7	36.2	36.2	35.3	35.2 / 42.1	30.6	37.7
HD Tach 3.0.1.0 (32 MB file)									
Average Read (MBps)	34.9	34.9	34.9	34.9	33.1	34.9	34.8 / 39.7	28	32.8
Average Write (MBps)	27.6	27.5	27.7	29.2	30.5	30.8	29 / 5.4	25.2	30.6
CPU Utilisation (%)	5	4	4	4	4	5	4 / 2	4	6
Random Access Time (ms)	17.3	16.4	17	23.1	18.1	15.8	18.4 / 18.7	22.1	17.1
Read Burst Speed (MBps)	35.2	35.1	37.4	35.1	35.2	35.3	35.2 / 42.2	31	35.3
SiSoft Sandra 2010									
Drive Index, Read (MBps)	33	31.4	31.7	33	31.59	32.6	33 / 41.27	26.83	31.2
Access Time, read (ms)	15.36	16.1	13	20	14	15.4	18.52 / 18.66	16.42	13.33
Drive Index, Write (MBps)	27.28	26.11	24	29.26	28.52	29.15	29 / 27	25.8	28.24
Access time, write (ms)	3.81	7.28	5.63	4.6	4.18	7	5.42 / 7.7	8.58	23.27
Real World Tests (MBps)									
File Write 8 GB Single File	30.80	30.34	26.95	28.25	31.27	31.51	31.03 / 29.47	26.09	31.51
File Write Test Assorted 8 GB File	27.31	27.13	24.09	22.02	29.47	29.47	28.24 / 27.31	25.92	28.44
Read Test Single 8 GB File	32.51	32.51	32.51	32.51	30.80	32.51	32 / 40.96	26.77	32.51
Read Test Assorted 8 GB File	30.80	30.57	30.57	31.27	29.68	31.51	31.26 / 38.64	25.76	31.51
Photoshop CS2 (1 GB File, in seconds)	83	81	86	82	72	116	79 / 150	83	74

indicates the power and data transfer modes. The Prestige is very similar in its form factor to Transcend's StoreJet.

Transcend's StoreJet 25M hard drive that we tested comes with a capacity of 500GB. This drive has a rubberized body and is US Military Standard tested. This means that the drive is very rugged and can still protect the data even after being dropped or driven over (How-ever we haven't tested this aspect so we would recommend that you don't try this out). It comes with a bright orange rubber strip running around the drive. It has a one touch backup button on one corner. It comes with bundled software which is not really required for installation.

Iomega Prestige Portable

A mini USB interface connects it to the computer.

The Buffalo Mini Station 320GB drive scores high in the looks department. We got a white colored drive which has a plastic body with glossy finish on one side and a matte finish on the other side. A blue

light keeps glowing when the drive is connected to the system. It has a flat wraparound USB cable which is quite useful in the sense that the user does not have to always remember to carry the connecting USB cable. A USB extension wire is also bundled in to provide additional flexibility to using the hard drive.

The 320 GB A-DATA Nobility NH42, is the slimmest drive we tested (12 mm). It comes with a leather pouch, and since its mini USB port is on its top edge, it can be used while placed within the pouch as well.

Seagate's FreeAgent Go series of 500 GB portable hard drives comes in as many as six colours. We tested the black coloured portable hard drive having a brushed metal finish. It is perforated on one end and a series of white lights underneath illuminate and pulsate underneath while the drive is working.

Performance

Performance was divided into two parts namely synthetic testing and real life testing. In synthetic testing we tested the hard drives on HD Tach and SiSoft Sandra 2010 to check the average read/write speeds and access time.

The HD Tach reading for most of the drives were close, with read speeds between 31 MBps and 35 MBps whereas writing speeds averaged 26 MBps to 28 MBps. However, having said that the FireWire interface gave Iomega the maximum readings in all other benchmarks.

The real mettle of the portable hard drives is tested in a real world data transfer scenario. We found that Transcend StoreJet 25M and Iomega Prestige gave the lowest time for a 4GB sequential write operation at 130 seconds. The 4 GB assorted file was also written at fast speeds by the same two drives, both clocking 139 seconds as compared to 186 seconds taken by the Buffalo Mini Station.

The Adobe Photoshop CS2 image opened the quickest in the Transcend StoreJet 25M at 72 seconds leaving behind even the FireWire interface of the Iomega drive at 150 seconds.

Iomega eGo's FireWire port doesn't add value to the performance as was expected in the real world data transfer cases.

DESKTOP HARD DRIVES				
BRAND	**WD**	**WD**	**Buffalo**	**Seagate**
Model Name	My Book Studio	My Book Elite	Drive Station	FreeAgent Desk
Model Number	WDBAAJ0010HSL-NESN	WDBAAH0010HCH-NESN	HD HX 1.0TU3-AP	ST310005FDA2E1-RK
Price (Rs.)	Rs.9,999	Rs.9,249	Rs.18,000	Rs. 5,750
Features				
HDD capacity (GB)	930.86	930.86	931.51	931.51
Interface	USB 2.0 / FireWire	USB 2.0	USB 3.0 / USB 2.0	USB 2.0
Rotational Speed (RPM)	7200	7200	7200	7200
Buffer Size (MB)	32	32	32	32
Performance	32.02	35.46	87.57	30.07
Synthetic Tests				
HD Tach 3.0.1.0 (8 MB file)				
Average Read (MBps)	29.2 / 33.1	32.9	115.5 / 35	30.8
Average Write (MBps)	24.5 / 25.1	25.5	77.1 / 28.1	25.3
CPU Utilisation (%)	5 / 1	4	1 / 7	5
Random Access Time (ms)	15.4 / 15	14.7	13.7 / 13.8	12.8
Read Burst Speed (MBps)	36.3 / 41.6	35.2	126.3 / 35.2	32
HD Tach 3.0.1.0 (32 MB file)				
Average Read (MBps)	34.5 / 40.3	34.3	115.5 / 34.9	30.6
Average Write (MBps)	23.8 / 29.3	28.2	90.1 / 29.6	27.8
CPU Utilisation (%)	5 / 1	5	4 / 6	6
Random Access Time (ms)	15.5 / 15	14.9	13.6 / 13.8	12.8
Read Burst Speed (MBps)	35.2 / 41.7	40.4	126.2 / 35.2	32.8
SiSoft Sandra 2010				
Drive Index, Read (MBps)	32 / 40.15	36.2	111.43 / 33	29.4
Access Time, read (ms)	9.35 / 10.22	9.24	13.12 / 13.5	12.63
Drive Index, Write (MBps)	27 / 30.36	29.7	95.86 / 29	28
Access time, write (ms)	2.6 / 6.37	0.24	0.02 / 0.01	4.36
Real World Tests (MBps)				
File Write 8 GB Single File	30.11 / 33.85	32.51	91.02 / 31.75	29.90
File Write Test Assorted 8 GB File	25.6 / 30.57	29.90	77.28 / 29.68	27.68
Read Test Single 8 GB File	32.25 / 40.55	35.93	99.90 / 32.25	27.68
Read Test Assorted 8 GB File	30.79 / 39.01	34.13	93.09 / 30.8	26.95
Photoshop CS2 (1 GB File, in seconds)	75 / 67	68	37 / 71.8	88

A-DATA Nobility NH92

Desktop hard drives

We got four hard disk drives in this category, each having a capacity of 1 TeraByte. This category generally comprises bulky hard drives in which

WD My Book Studio

Faster data
SDXC cards have a data transfer rate of 300 MBps and can go up to 2 TB

And some more
Transcend's JetFlash 600 pen drive has read speeds of 32 MBps and write speeds of 18 MBps

an external power connection is mandatory for the drive to work. In addition to this all the three drives were very impressive on the aesthetic aspect.

Silver bodied WD My Book Studio has an almost circular front panel with a pin hole which shows the power light. An impressive aspect about this product is the e-ink display on the front panel which gauges the capacity of the hard drive. It also displays other information like the name of the HDD, type of data and number of files. On the rear it has two firewire ports, a USB port and power button. This drive has vents on the top, rear and the bottom to allow heat dissipation. The metal body is quite sturdy.

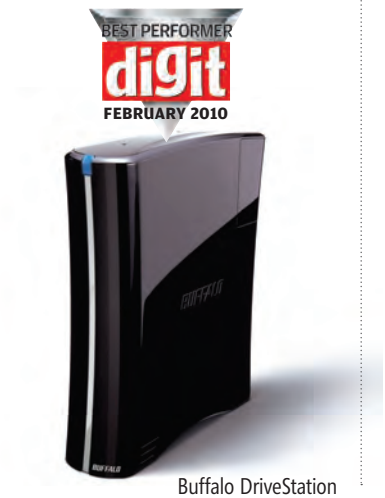
WD's My Book Elite is very similiar to My Book Studio in appearance and has vents on the top, rear and bottom side of the hard drive. This drive however does not have a Firewire port.

On connecting both the WD My Book Studio and WD My Book Elite, the WD SmartWare software starts automatically. This software allows the user to name the external drive and password protect it. It also has smart Backup and Retrieve options. A very interesting feature is the backup option. On clicking on the Backup tab, we get a graphical representation of the available data on our system drives (default C:) divided into 6 options like system, pictures, documents, music, movies and others. For quick backups, the user just has to select the desired option and click Run Backup. The transfer starts which can be seen visually. However, there is no option to select individual folders for this purpose.

FreeAgent Desk, the 1 TB external hard drive from Seagate comes in a silver brush metal finish with a stand. It has a power input and a mini USB connection on the rear end.

The Buffalo DriveStation 1 TB hard drive, was the only one with a USB 3.0 interface (with almost triple data transfer speeds as compared to USB 2.0). It comes in a black glossy body. A silver line runs through the front panel with a blue light on top indicating power in the USB 3.0 mode and a green glow in USB 2.0 mode.

We used the Buffalo USB 3.0 interface card for PCI Express to conduct the test. It has a vent on the rear side to allow heat dissipation. The glossy finish looks smashing, though it tends to collect a lot of dust and definitely not suited to Indian conditions.



Buffalo DriveStation

Performance

The external hard drives have a buffer size that is much greater than the portable hard drives (32 MB as opposed to 8 MB of portable hard drives), as a result of which one gets a much better performance. But this performance comes at the cost of portability.

WD's My Book Elite gave a marginally better performance with average read and write speeds. But when the WD My

HOW WE TESTED

We divided the external hard drives into two main parts based on the portability and size, namely Portable Hard Drives and Desktop Hard Drives. Portable Drives comprised compact drives most of which did not have an external power connector whereas Desktop drives comprised drives which were comparitively bigger in size and had an external power connector.

The hardware setup was made up of an ASUS P5Q3 motherboard with an Intel Core 2 QX9650 processor, 4 GB Corsair Dominator DDR3 RAM, 300GB WD Velociraptor hard disk drive and GeForce 7300LE graphics card. The power was supplied by Corsair HX620. This setup was maintained throughout the tests except for Buffalo 1 TB drive. While testing this drive only an interface card was added as this Buffalo drive had a USB 3.0 interface unlike all the other drives which had USB 2.0 interfaces.

External drives are meant to give impressive read / write speeds when connected to the system, so the theoretical benchmarks used in the comparison tests were HD Tach and SiSoft Sandra 2010. HD Tach measures the performance of external drives by bypassing as many software as possible. This helps in giving read/write speeds, CPU utilization and random access times as well as interface burst speed. Both the HD Tach and SiSoft Sandra tests require an unformatted drive to perform the Write testing. After finishing with these two benchmarks we formatted and divided the external hard drives into two partitions of equal size. All the benchmark processes were run on the minimum Windows Vista settings. - All benchmarks were run on Windows Vita with system restore and paging file fixed to 4 GB.

In data transfer tests we followed three test processes. File Writing for a 4 GB sequential and assorted file; File reading for a 4 GB sequential and assorted file and a Photoshop image loading. To simulate a write test we copied files from the HDD to the external drive and vice versa. To prevent giving drives an undue advantage while reading due to the caching process, we rebooted the system after completing the Write and then the Read operations. Adobe Photoshop CS2 was used to test the amount of time taken to load a 1GB image. The scratch disk was placed on the external drive.

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Transcend	Transcend Information Inc	+91-33-2213 1221-23	coordinator@supertronindia.com	www.transcend.co.in
Iomega	EMC Company	1-800-180 2237	-	www.iomega.com
Buffalo	Buffalo Technology Inc	+91-11-4153 8059	b-milinda@melcoinc.co.jp	www.buffalotech.com
A-DATA	A-DATA Technology Co. Ltd	+886-2-8228 0886	jerry_lu@adata.com.tw	www.adata-group.com

IPv6?
With less than 10 per cent IPv4 addresses left, we need to move to IPv6

Book Studio was connected via the FireWire interface, it gave a better performance than the WD Elite. This can be attributed to the fact that FireWire has comparatively larger data transfer speeds as compared to USB 2.0 interface.

The Buffalo Drive Station on the other hand was in an altogether different league with the USB 3.0 interface. As boasted on the cover of the hard drive, the USB 3.0 interface indeed gave us three times faster performance as compared to the USB 2.0 interface. Where the read burst speed for the FireWire interface of WD Studio tallied to 41.6 MBps, that of Buffalo zoomed to 126.2 MBps, a three-fold jump in the readings. Same was true for write speeds as well.

True performance is however tested in real life tests like data transfer speeds. Between the WD Studio and WD Elite, for a USB 2.0 interface, Elite gave a better performance. It took less time to read / write and open the 1 GB Photoshop file. But using the firewire port on WD Studio dwarfs the WD Elite scores. There is a 15-20 per cent improvement in performance when a FireWire port is used on the WD Studio as compared to the USB 2.0 ports.

The Buffalo drive was a winner in the synthetic tests, so it was expected to be a winner in the real life tests as well. If the numbers are anything to go by, then USB 3.0 is going to be the next thing to watch out for. As the capacity of the drives increases it only makes sense to increase the data transfer speeds. USB 3.0 interface is a start in that direction.

A sequential 4GB file took 41 secs and 45 secs for a read and write operation respectively. This is nearly a 60 per cent improvement from the fastest firewire port of WD Studio. As far as transfer speeds go, there was simply no competition to Buffalo Drive Station. But when we interfaced the Drive station with a USB 2.0 port we got results similiar to the rest of the drives. So to get a performance, users need to use the

Seagate FreeAgent Desk 1TB

USB 3.0 interface which can be brought separately. The one that we used costs around Rs. 4,500 which is quite an investment.

Conclusion

In the desktop hard drives, we found that the Buffalo DriveStation zoomed with its high data transfer speeds. But as it was the only USB 3.0 compatible drive, we haven't used it as a reference point for portable hard drive testing. We felt that for users who are willing to spend and who expect quick data transfer, Buffalo DriveStation is the ideal drive to go for. Although for Rs 18,000, we feel its steeply priced but its performance is unmatched. Regular home users wanting a better cost per GB, should go for our Best Buy – Seagate Desk Agent priced at Rs. 7,500.

Among the portable hard drives, Transcend StoreJet 25M was the fastest drive. A-DATA Nobility gave 90 per cent of the performance of Transcend at a very minimal price of Rs 2,900, so we felt it deserved the Best Buy.

If you're looking at buying external hard drive, low cost per GB is one necessity, but that should not be the *only* aspect as data transfer speeds also need to be considered. Happy shopping!

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Hexa-core soon
Intel's new six-core processor, the Core i7 980X looks all set to break records

GW990 smartphone
LG shows off the GW990 smartphone which is powered by the Atom processor and runs Moblin

Photography: Jiten Gandhi

Choosing the right netbook isn't as easy as it seems. We feature the hottest netbooks you can buy in this two-part test. You can read part two online at www.thinkdigit.com/d/netbook_test

Small Surfers

Michael Browne
michael.browne@thinkdigit.com

They were always cheap, but netbooks have become mundane enough to be compared to cellphones. Why? – Nearly everybody has one, and those that need one have no dearth of choice. Of course the hardware found in netbooks isn't as diverse as in their faster, bulkier cousins, notebooks, and some might feel that keypad and screen size aside, there are very few differences. Well, this was true until a few months back. AMD entered the netbook space early last year; followed by VIA (now that's a name we haven't heard in some time!) with their Nano CPU. NVIDIA has a solution that hasn't seen many takers in the Ion – a combination of Intels Atom processor and NVIDIAs own 9400M northbridge. NVIDIA is also threatening to enter the netbook space with their Tegra range and in lieu of all the above, netbooks have gotten much needed variety in terms of hardware. Intel's own Pinetrail debuted recently. For those not in the loop, Pinetrail is nothing more than a new version of the Atom CPU, integrating a memory controller, DMI link and GMA 3150 graphics core.

Initially netbooks typically featured 10-inch displays and this underlies both, one of the major plus points and pitfalls that plague them. The small screen means a small footprint and lower weight. This, in turn, is the darling of many a traveller who wishes to be connected at all times. A netbook is lighter than nearly all notebooks and much cheaper; very convenient for most cadres of people including businessmen, college goers, travelling executives and almost anyone wanting the internet with a bit of documents and spreadsheets thrown in. However the small screen is a turnoff for many. After all, everything is moving to a visual interface and everyone likes a large screen. Multimedia is also a big no on a netbook, the weak hardware being the culprit here. So games, HD movies and multitasking is simply too much of a strain for such paltry hardware. Therefore a netbook is a tradeoff of sorts, fortunately it's good at what it's supposed to do. Brands like Intel, AMD and NVIDIA are working on making netbook hardware more powerful and this should happen over the next year or so, but the notion of playing a game like *Crysis* on a netbook is so ridiculous, don't even think of it for at least another three years!

We've split up our netbook test into two cohesive writeups – the first part consisting of seven netbooks, is what follows here on.

MSI U130

Of sails and wind

Short of height and of wide girth, is how we'd like to describe the U130. Its footprint is small, thanks to the 10-inch display, however, it could have been smaller. Although any smaller and the keypad would have become unnecessarily cramped, as it is it's barely usable. The U130 is squat though, unnecessarily so, thanks to the absence of any sort of streamlining of the body on MSIs part and an extruding battery pack. It feels pretty solid and the plastics used are pretty thick and without flex, unlike some flimsier stuff we've seen in the past. A glossy black lid embossed with fine dark grey lines is nothing

special, but there's something about the overall effect that is nice. MSI follows the glossy lid with a smooth black finish inside which as a whole, other than its thickness the U130 isn't too bad looking. As mentioned, the bezel will not appeal to our slim-everything loving generation. Under the lid, the left/right click is a single strip and while small, it is easy to use, though the button feels unnecessarily clicky. The choice of material on the trackpad is good for accurate tracking and there is a great balance between grip and slip; the mouse buttons are a bit hard to press. The keys are slightly smaller than what is considered comfortable. Key spacing is a little on the skimpy side. To be honest notebook, users will struggle to adjust.Unfortunately it seems a larger surface area on the top of each key would have helped, instead MSI chose to have keys with sloping sides – meaning a lot of potential contact area between your fingerpads and the keypad is missing. Towards the right side on the bottom edge of the palmrest is a group of LED indicators. There are no shortcut keys and the power button feels clicky, thankfully it's black – no garish chrome here.

MSI U130

The control key on the left is not the corner key – an ergonomic goof up many netbook vendors are guilty of, and one that there is just no getting used to. The speakers exhibit a complete lack of bass; in fact LF sounds are missed for the most part. The webcamera despite its impressive rating of 1.3 megapixels is pretty ordinary, but better than the other 0.3-megapixel units out there. Just make sure you use it in well-illuminated surroundings.

Finding Windows 7 Starter Edition was a nice surprise, as was the performance in the Wi-Fi test. DisplayMate trashes the screen. At 1024 x 600 pixels, a product highlight it is not. Brightness levels are okay, but the colour and contrast is very minimal. The resolution might be a problem for hardcore internet-junkies. Note that the U130 is based on the new Pinetrail platform and this makes it a frugal performer when it comes to power consumption, even though MSI cheated a bit by sending us a 6 cell battery. The U130 is generally available with a 3 cell; the 6 cell being optional. We were able to get over five and half hours – not bad at all. Shockingly, this tiny netbook chalked up the highest 3D Mark scores, including the CPU score, a testament to its new innards. Incidentally, the model we received did not have support for a SIM, although this is optional.

Rs. 23,000 may seem like a lot to pay for a netbook, but such is always the case with new hardware. Expect a price drop within the next five months as competing models also incorporate Pinetrail. However, MSI can do a lot more in the looks department; for when blowing close to 23,000 rupees on a netbook, we expect a bit of glitz.

Gateway LT2002I

Entry to mediocrity

Gateway has tried to impart the LT2002I with a slightly different look. The outcome is a netbook much slimmer than the U130 and the design sees the battery pack protruding from the rear, which is better when using the device, but may not be better when carting it around. The lid is glossy and has a thin grey-silver bezel running around it that when viewed from the top disappears into the front of the lid. This insert provides a welcome relief from the body that is otherwise entirely plain. Build quality is good and the materials used seem good. The lid clips have a garish chrome trim that is a glaring contrast to the suaveness of the overall design, but it only looks garish from the inside. The bezel is a little too wide, especially on the top – the only spoiler for the otherwise good design. As mentioned, the battery pack protrudes out the rear but doesn't add much to the height of the device.

Open her up and the Bluetooth button sitting amid the status indicator LEDs is welcome, though a Wi-Fi button may have been more useful.

Gateway LT2002I

CONTACT DETAILS

Brands	Contact	E-mail	Phone	Web site
Acer / Gateway	Acer India (Pvt) Ltd	dinesh_nair@acer.co.in	+91-80-4070 8700	www.acer.co.in
ASUS	Mr. Stanley Wu	media_india@asus.com	+91-22-6766 8800	www.asus.in
BenQ	Neoteric Infomatique Ltd.	sales@neoteric.co.in	+91-22-4085 9600	www.neoteric.co.in
MSI	Micro-Star Int'l Co.,Ltd.	marketing@msi-in.com	+91-11-4175 8808	http://in.msi.com
HCL	HCL Technologies Ltd.	NA	+91-120-4203122	www.hclinfosystems.in
Zenith	Zenith Computers Ltd	info@zenith-india.com	+91-22-2837 7300	www.zenithpc.com

Free OVI maps
Nokia has started to offer free versions of their OVI GPS navigation tool with their smartphones

Apple + Microsoft?
This has got to be a something special – rumours abound that that two rivals may finally team up to take on Google's Android

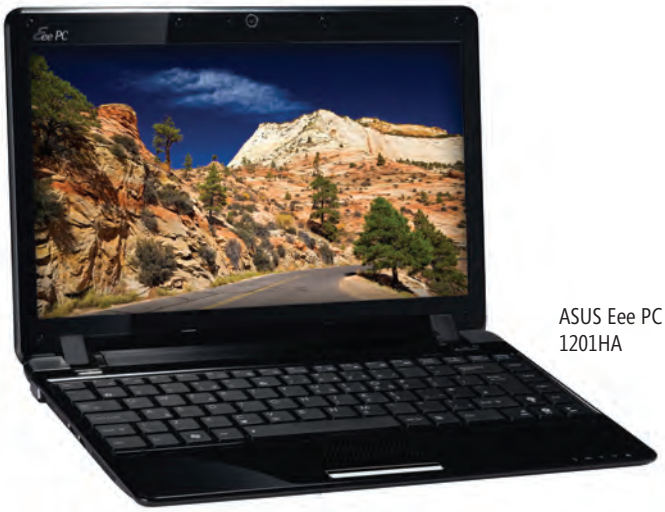
The tiny trackpad has a neat chrome trim, more importantly, it is pretty usable with good tracking and the mouse buttons are decent, better than MSI's U130, with slightly better feedback; they're bigger as well. The Function keys are smallish, and people with big fingers will need to get used to them. The rest of the keypad elicits mixed reactions, for while the left control button is well positioned and the keys appear large, they are actually smaller than the U130 and the spacing is also a bit less. We feel the U130 is the smallest keys can get and still retain some usability for all but the lady-fingered, pardon the expression. The problem here is the fact that as a keypad becomes smaller, the size of the keys suddenly becomes disproportionately important. Take a much larger keypad, say one on Apple's Macbook Pro and even if the keys were 10 per cent closer or further from each other, the usability wouldn't get affected much. Gateway needs to improve their keypad design.

The screen resolution is 1024 x 600 pixels, pretty much the norm for a 10.1-inch display, but we cannot help but complain each time we see this. Performance was nothing outstanding or complain-worthy, the LT2002I is pretty much at par with other netbooks. Surprisingly, it fared badly in the Wi-Fi transfer test, although it uses an Atheros 802.11 chipset, as do all the other netbooks. The LT2002I does have a 6-cell battery; this allows its battery to go over four hours in our battery test.

ASUS Eee PC 1201HA

Shiny lover

The 1201HA is neat looking to say the least and it's finished in a pure glossy black. While glossy black finishes are a dime-a-dozen these days the 1201HA looks hot, but not as hot as the pure white version, at the expense of sounding colour prejudiced, which we are! And she's slim as well; ASUS has managed a very sleek look, with designeresque curves and edges. The display is also pretty good, and at 12.1-inches it's larger than typical netbooks and gloriously viewable. The screen resolution is 1366 x 768 pixels – not bad. The thick bezel will bother some, but ASUS has given this one a segregated keypad that will catch your attention. It's a good looker but doesn't function as well – the keys are slightly smaller than we'd like, and although key spacing is fine, the whole setup feels a little unintuitive while typing. Larger keys next time ASUS is all we can say. Then there's the mushy feedback, and this completes the suspicion that ASUS was trying to achieve a Sony-like feel to their keypad, since Sony uses the same segregated design and soft keys. The trackpad is reasonably accurate; but a royal pain. It has tiny dimples that immediately earn our distaste. They are abrasive to the fingerpads and very uncomfortable, and will bother the heck out of you, unless you're a manual labourer. The dedicated trackpad disable



ASUS Eee PC 1201HA

HOW WE TESTED

Netbooks need no segregation because fundamentally the hardware stays the same. The price points do differ, but the difference is typically never more than Rs. 5,000. We logged all the specifications of each netbook and awarded points for the hard drive size, choice of bundled OS, number of USB ports and other ports and connectivity provided.

We also rated the build quality of the netbook, the usability and intuitiveness of the keypad, trackpad and any shortcut buttons. We took into consideration how comfortable the whole experience of using the netbook was, how suitable the keypad was to people with both small and large hands – an important parameter especially considering ergonomics is of utmost important with smaller sized keypads.

For performance we used PC Mark 05 and 3D Mark 05 as our primary benchmarks. PC Mark, with its suite of 48 tests, gives a good idea of overall and individual performance of each component. 3D Mark 05 gives us an idea of the performance of the CPU and graphic subsystems. SiSoft Sandra 2010 Engineer was also used to test each individual component. Our real world tests included a couple of CPU tests – WinRAR 3.9b and a .vob to .divx file encoding test. We also stress tested the hard drive by doing an intra drive copy from one partition to the other. We tested both sequential and random read/writes and the scores are displayed in megabytes per second (MBps). The quality of the inbuilt speakers and webcamera were tested with a subjective test. Finally Performance Mark 7.0 was used to test the speed of the wireless component. Our battery test involves using VLC player to loop a .VOB file using full inbuilt speaker volume and maximum screen brightness. Every power saving feature is disabled making this somewhat of a torture test for the battery. For our music test, we used a couple of MP3s encoded at 320 KBps. For the webcamera test we took a couple of shots, one in dim conditions, one under fluorescent lighting and took an average of both scores.

We did not award a Best Performer Award simply because there isn't much to choose from in terms of this parameter and people will not simply buy a netbook because it is 10 seconds faster at encoding videos. Please look for our detailed tables online at www.thinkdigit.com/d/feb_tables.

button is a nice addition and is useful, since the trackpad isn't recessed.

It's size belies the hardware and a 1.33 GHz Atom Z520 is puny indeed, especially since given the larger screen, ASUS had more space to shoehorn some higher performing goodies in. In testament to the weak processor, the video encoding scores were the lowest, taking just 12 seconds short of three minutes. It was also the second last in the Wi-Fi test. Not an impressive show at all. But hey! – people don't buy netbooks for their performance, do they? The 2 GB of DDR2 RAM makes booting up and surfing quite snappy, and this is the only other netbook aside from the MSI U130 to feature Windows 7 Starter. Priced at Rs. 23,990, the 1201HA is a lovely piece of equipment to behold, but once you begin using it some chinks in its armour become noticeable. If you are looking for a larger screen however, it is worth a look.

Zenith Z Book Dock

Docked for success

Zenith isn't the first brand that comes to mind when it comes to netbooks but we have a surprise package on our hands. The Z Book is a pretty neat looking netbook with a glossy finished lid. The inside is a smooth texture that imparts a quality feel. The lid is designed similar to the Gateway LT2002I, but is of much better quality. The netbook is pretty slim and feels quite compact and the build quality seems good. The lid closes with a nice positive snap. The bezel isn't too narrow and this along with the textured matte black insert just above the keypad spoils the visual effect, once you flip the lid. The keypad while small has decent key spacing. Overall, people used to a slightly larger keypad will have problems adjusting. In comparison, the Acer 532h has a similar footprint but the keypad is a lot better – not only are the keys larger, they feel better spaced out. Once measured, we found the distance between keys to be the same, but due to the design our fingers perceived a greater distance between keys on the Acer. The mouse buttons are vertically stacked, on either side of the trackpad. To be honest this design isn't too bad, but it takes a fair bit of getting used to before it can be termed as intuitive. The keypad tracking is erratic though, definitely not as accurate as the other netbooks, although it's miles ahead in terms of comfort if compared to the ASUS 1201HA.

Zenith Z Book Dock

The Z Book has a nice dock that stands the notebook vertically where it occupies a

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Fish armour?
MIT scientists have created designs for better armour, inspiration from which is derived from the shells of molluscs

New is hot
Valve reveals that 23 per cent of their customers are running Windows 7 and DX 11

minimal footprint and while docked the notebook manages a look of chic sophistication. The dock features all the connects of the notebook, including a VGA connect which will need to be used since the lid needs to be closed in order to use the dock. On the box Ubuntu 8.04 is mentioned, but we got ours with a clean copy of Windows XP. Do remember that the cost of an additional OS has to be considered. The 10.1-inch screen is pretty ordinary and at 1024 x 600 pixels, it's very basic. At Rs. 20,000 its at a sweet price point.

BenQ Joybook Lite U121 Eco

Not-so-small bundle of joy

A really nice looking netbook, this one has a smoky blue coloured lid that immediately attracts attention, especially since it's finished in glossy material. The display bezel is black, while the palm rest and the region surrounding the keypad is dark grey – very good colour combinations used – kudos to BenQ for getting the looks spot-on. The lid design is also funky with a circular rear

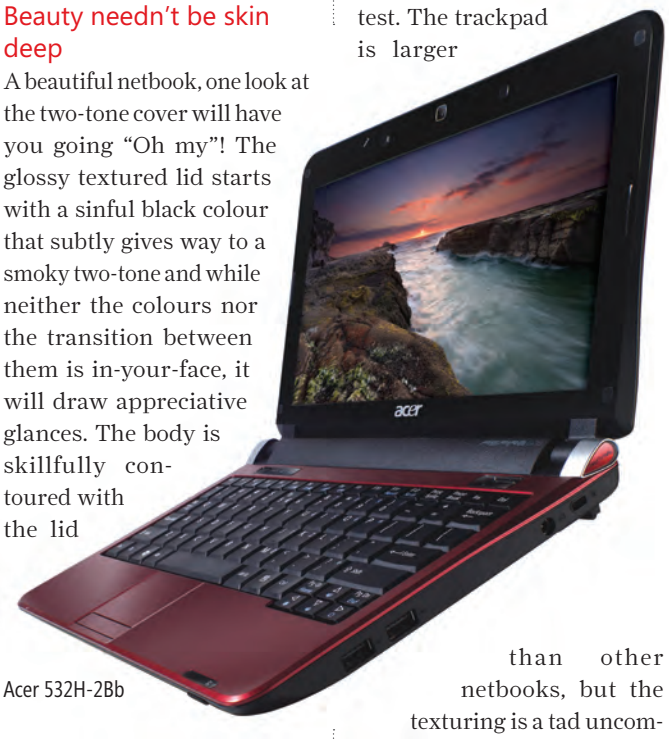
portion. The display bezel is narrow. The trackpad, while small, is reasonably accurate though the mouse buttons feel a little clicky. The keypad is slightly bigger than the U130, obviously, owing to the larger screen (11.6-inches), and this makes it much easier to use, even more than the ASUS' keypad, despite the fact that it had a larger screen. Key feedback is reasonably positive and feedback is firm, the keys are also well laid out. The last row of keys on the right has the Home/ page up / page down keys, typically placed as function-activated keys on the directional arrow keys – two currency symbols – representing the US dollar and Euro are also present, though we see little use for them.

The Z520 Atom CPU and 1 GB of DDR2 RAM mean its performance is no scorcher, on par with the ASUS 1201HA. From the design it's evident that the U121 Eco has been designed for a 6-cell battery as there's no protrusion of any sort. This battery is good for 4 hours and 17 minutes of video playback, which is very good. The speakers give out pleasant sound, bass shy (as usual), but they pick up some of the nuances. The warranty provided by BenQ is pretty sterling – 3 years, when all other vendors just cover you for a year. Which brings us to the con, and there has to be one – its price. At Rs. 33,000 the Joybook Lite U121 Eco, will not be a joyful proposition to spend on, particularly since the likes of Acer's Timeline series are priced similarly and they have better hardware and will obviously perform better as well. Not recommended for the price tag, which is astronomical by netbook standards.

Acer 532H-2Bb

Beauty needn't be skin deep

A beautiful netbook, one look at the two-tone cover will have you going "Oh my"! The glossy textured lid starts with a sinful black colour that subtly gives way to a smoky two-tone and while neither the colours nor the transition between them is in-your-face, it will draw appreciative glances. The body is skillfully contoured with the lid blending into the cut out of the body when closed. Build quality is very good – everything feels pretty solid. Even the activity and status LEDs exude quality. Opening it up, you're greeted by some of the largest keys we've seen on a netbook, and they're devoid of any beveling, which actually works pretty fine. Thanks to the greater surface area per key under your fingerpad, the keypad is a joy to use, despite the fact that it is cramped – a factor that cannot be helped given the tiny screen. Typing away even longer mails and documents is actually something we got pretty accustomed to – something that didn't happen with any of the other netbooks. Initally the lack of beveling feels alien to the fingers, but after about an hour ones typing speed picks up. The display resolution is a paltry 1024 x 600, the de facto resolution for this size, but the display has marginally better colour rendition than some of the other displays in this test. The trackpad is larger than other netbooks, but the texturing is a tad uncomfortable, although nowhere near as abrasive as the ASUS' trackpad. Tracking accuracy is good. The mouse button is a single long strip that works well, but feels clicky.



Acer 532H-2Bb

The Pinetrail N450 makes a second appearance here, after the U130. The battery is slightly lower rated as well, and the hard drive is smaller at 160 GB. Performance is good per se, and the 532H took the least time in the file-encoding test. Priced at Rs. 19,200 the 532H is definitely a worthy purchase for someone looking at something really compact and more

Panache Smile PC T1610

Portable desktop

Panache Smile PC is a compact desktop with all its components enclosed in a glossy black rectangular metal box. It is quite portable and easy to carry around. The design is very basic and minimal. It has nine outputs on its rear including USB ports, power connection port, audio and microphone jack, monitor input among other things. The lower part of the device tends to get hotter than the rest of it as there are no vents to allow air flow.

Setting up the device is very easy. Once the monitor is connected the device is ready to be used. It comes pre-loaded with the Windows 7 Starter Edition.

The performance test benchmarks were kept the same as the ones we have for netbooks, as this kind of configuration is found on netbooks. Performance wise Panache gives scores which are slightly less than the Best Performer ASUS Eee PC 1005HA netbook. The PC Mark benchmark CPU score was 1396 whereas the Cinebench CPU Rendering test gave a score of CB 840. It took 279 secs for VOB to DivX file conversion and 49 secs for a 1 GB file transfer.

Panache Smile PC is ideal for users who want to use the browse the net, chat or work on documents. With the help of the LAN port it can be used as a remote torrent client. Extremely low power consumption. At a price of Rs 19, 990, it's expensive for such a configuration. ZOTAC's MAG is available for a lot less and has a slightly better configuration.

Specifications

Intel Atom N270 1.6 GHz processor, 2 GB of RAM, 250GB HDD, Windows 7 Starter pre loaded.

Contact

Panache Infotech Pvt Ltd
Phone: +91-93200 22012
Email: info@panache.co.in
Web site: www.panache.co.in
Price: Rs. 19,990

5.5/10

Features	6
Performance	5.5
Build Quality	8
Value	4.5

ASUS Radeon EAH5850

Jack of all trades

Specifications

1440 stream processors, core clock: 725 MHz, 1 GB DDR5 @ 1 GHz 256-bit, 2 x DVI, 1 x HDM, 1 x Display port

Contact

ASUS Technology Pvt. Ltd.
Phone: +91-22-6766 8800 / 1-800-209 0365
Email: media_india@asus.com
Web site: www.asus.in
Price: Rs. 21,250/-

7/10

Features	8
Performance	7
Build Quality	7
Value	6

The Radeon 5850 is finally here. It comes with twice the number of stream processors compared to the older Radeon 4850. In spite of this, the 5850 is humble at power consumption and runs cool too. Its performance in synthetic benchmarks is nearly double the last generation 4850 and on par with the high end GTX 285.

Even in the real world benchmarks, it gave 80% higher fps in games like *Crysis Warhead*, *Far Cry 2*, etc. ATI has employed aggressive power saving techniques and claims 27 watts consumption on idle which should make the power-conscious happy. Although it supports DX11, very few DX11 titles are available making it difficult to gauge its DX11 performance.

To sweeten the deal, ASUS has included a complimentary copy of *Dirt 2* which is among the few DX11 titles. Once NVIDIA launches their cards and the Rs. 21,250 price tag drops, the 5850 is destined to be the hot favourite among the system builders who want performance but on a budget.

Playing Nostradamus
Acer founder and former Chairman quoted predicting end of US PC makers within the next two decades

USB 3.0 is here
WD launches its fastest My Book series external drive equipped with USB 3.0 interface

XFX HD5970 Black Edition

The one to rule them all

The XFX Radeon 5970 Black Edition by default has the same core and memory clock as the non-BE edition but that's where the similarity ends. The BE tag gives you exclusive access to the XFX 'over volt' tool. However, no games come bundled which is not expected from a premium product. It is a dual GPU setup mounted on a single dual-slot video card.

The 5970 posted a record score of 21,547 in 3D Mark Vantage. In real world tests, the 5970 beats the GTX 295 even at stock settings. This HD5970 is a little faster than the AMD Radeon 5970 we tested last month. All this brutal power comes at a heavy cost. It comes with the reference cooler which struggles to keep it cool even at stock settings and the card gets really hot, which makes it very clear that overclocking the card will need additional cooling and a prospective buyer needs to be sure his/her cabinet is large enough with sufficient ventilation for this mammoth 13-inch card. We faced some instability issues as well while running some benchmarks. The 5970 is aimed at the enthusiast segment and comes at a high premium price of Rs. 45,000, which we feel is overpriced.

Specifications

3200 stream processors, Core clock: 725 MHz, 2 GB GDDR5 @ 1 GHz 512-bit interface, 2 x DVI, 1 x Display port

Contact

Rashi Peripherals Pvt Ltd
Phone: +91-22-6709 0828
Email: response@rptechindia.com
Web: www.xfxforce.com
Price: Rs. 45,000

6.5/10

Features	8
Performance	8
Build Quality	7
Value	3

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Synology Disk Station DS410j

A multi-purporse NAS

Synology's DS410j is one of the coolest products to come around for those who love to download or have loads of unmanageable data.

The DS410j is a NAS without drive i.e. an enclosure with four SATA bays. Indicators at the front for the drive and network status are present. Installation of the drives is very simple. Two USB ports are also available for external storage drives.

The DS410j boasts of a wide variety of features — everything from Windows file-sharing to web hosting, torrent and eDonkey client. Firmware upgrading is possible. Media can be streamed to any device that supports flash using a browser. Users and usergroups can be created and each one given privileges and quotas if required.

We recorded a stable 11.7 MB/s read and 9.5 MB/s write speeds between the device and a PC on a 100 Mbps network.

We would've loved to recommend this to anyone having a good unlimited broadband but the Rs. 32,500 price tag is way out of bounds. A more affordable sub-Rs. 15,000 would have been more suitable.

Specifications

800 MHz processor, 128 MB memory, 4 x 3.5-inch / 2.5-inch SATA drives, 8 TB overall capacity, 2 x USB ports, Gigabit LAN, 2 x 80 mm cooling fans

Contact

Mitesh Shah
Email: info@ebm.in
Web site: www.synology.com
Price: Rs. 32,500

7/10

Features	8
Performance	8
Build quality	8
Value for money	3

China d Samsung launches a boat load of point & shoot cameras - new SL, TL & HZ series d Google India and YouTube pony up, IPL to be streamed live on YouTube d 3outube: Want

Out of addresses
Did you know? We could soon run out of IP addresses with less than 10 percent IPv4 addresses left, lest we move to IPv6

Display Port 1.2
It's here to challenge HDMI with 21.6 GBps throughput and multiple monitor support from a single cable

Lian Li Armorsuit PC-P80

Exotic, lightweight-heavyweight chassis

Corrigendum
On page 73 of the January 2010 issue, the performance for Corsair HX850 should be read as 9 instead of 6.5.

Lian Li's world renowned chassis' are seeping into the Indian market. One of the first ones is the PC-P80

The Lian Li P80 is without a doubt, a giant when it comes to cabinets. Towering nearly two feet and with space for some six hard drives under its hood, it's not exactly heavy. The aluminium build with its brushed metal finish give it an elegant look. There aren't any fancy paint jobs and gimmicks to fool you.

The frame inside is sturdy. There is absolute attention to detail everywhere — in the buttons, the drive pays, the expansion slots at the back, the front connectors, etc. Almost everything in this case is made of metal and is intricately designed and machined. The front door itself has three fans in it and the hinge is both smooth and sturdy. The drive bay doors have perforations in them which allow very good air flow from the front to the back.

The motherboard back panel has spaces with rubber border padding to prevent damage to cables while you route cables through them. The front panel with the USB, eSATA, Firewire and audio connectors is hidden under a folding metal Lian Li panel. The power button feels good but the Reset button is too small.

This is perfect for flaunting gamers who need a frame to house their high-end dual-graphics card rigs with water cooling in. This is one of the lighter rigs and better designed rigs to do that in. Still, you're going to feel the pinch. At a price of Rs. 26,000, it's too costly to recommend, unless you're crazy rich.

Specifications

Super full tower case, 12 x 5.25-inch drive bays, 4 x 14cm LED fans, 1 x 12cm LED fan, aluminum build
Dimensions: 220 x 633 x 641 mm

Contact

Xtreme Grafix
Phone: +91-99875 39043
Email: Sudhirs-mani@gmail.com
Web site: www.lian-li.com
Price: Rs. 26,000

6.5/10

Features.....8
Performance.....8
Build quality..... 7.5
Value for money.....3

Belkin n52te

Quivering palm

Specifications

8-way thumbpad, 15 customizable keys, backlit keypad, scroll wheel, USB connectivity

Contact

Rengith Nair
Phone: +91-124-6688 813
Email: rengithn@belkin.com
Web site: www.belkin.com
Price: Rs. 3,878

7/10

Features..... 7.5
Performance..... 7.5
Build quality.....7
Value for money.....7

Razer is the one behind the very fancy looking Belkin n52te gaming controller. The design is simple — a set of keys in front of an anti-bacterial palmrest. It comes with a D-pad like on other game controllers. The console is comfortable but the spacebar key is positioned at the extreme right and reaching it with ones thumb is a bit of a problem; which is a pain while playing intensive FPS games such as Counter-Strike, Quake 3, etc. The D-pad makes for an interesting utility especially in RTS games where you need to pan the scene around.

The drivers allow a good level of customisation and keys can be mapped as well as assigned macro functions. There's even the polling rate setting like on a high-performance gaming mouse. If done right, this is something that can be used for browsing or controlling a media centre software.

The Belkin n52te makes good sense for a gaming enthusiast. However, Rs. 3,878 is a little too pricey when most full-fledged gaming keyboards with customisable keys can be bought a similar amount. This controller is unique, however, and is definitely going to grab people's attention at a LAN party.

to download YouTube videos? Change the 'Y" to "3" in the URL, its that simple! AMD's Redwood based, sub $100 Radeon HD 5670 released making DX11 reachable to the

MS Phone?
Microsoft to do a Google, might reveal its own phone at the Mobile World Congress

Striking back
NVIDIA's attempt to steal ATI's thunder – NVIDIA Fermi/ GF 100 architecture revealed

Epson Stylus Office T30

More for the home than office

The Epson Stylus Office T30 colour printer comes in an all-black body and is very similar in design to the Canon Pixma series. However, the differentiating factor is that the T30 uses five cartridges in the printer to give a high quality color print.

The T30 has an input tray as well as an output tray. The hinges are not that strong and the build is not sturdy enough. It has three buttons on the front panel for power, ink feed and removing jammed papers. The printer does not have Pict-Bridge or network support.

Cartridge installation takes some time and is tedious, but not difficult. The user interface software is simple to navigate through. The software prompts the user to change cartridges if the ink levels are not up to the mark.

The printer gives great output on Normal and Fine modes, but the performance reduces drastically in the Economy modes. Text printing is blazing with the printer taking just six seconds to print in normal quality mode. Economy mode, although faster by one second looks pretty bad, with the printing appearing washed out. For continuous fast printing, the printer took two minutes 50 seconds to print 15 A4 pages, but the quality was severely compromised as one could see the pixels. Photo quality was very good, for its price.

The printer is ideally suited for people who want excellent quality photo prints, but not fast printing. So Rs 5,299, is a decent investment for this printer.

Specifications

Optimised resolution: 5760 dpi, 3.8 kg, 73HN Ink Series (High Capacity Inks) 73N Ink Series (Standard Inks)

Contact

Epson India Pvt Ltd
Phone: +91-80-3051 5023
Email: ravishankar@eid.epson.co.in
Web site: www.epson.co.in
Price: Rs. 5,299

7/10

Features.....7
Performance.....7
Build quality.....6.5
Value for money.....7

Gigabyte MIB T3140

Small wonder

Specifications

160W Power Supply, VESA compliant stand, DVD drive tray, mini – ITX tray, 2 USB2.0 ports and 1 audio port.

Contact

Kamal Thakur
Phone: +91-22-4220 3100
Email: sales@priyagroup.com
Web site: www.priyagroup.com
Price: Rs. 3,999

7.5/10

Features.....7
Performance.....NA
Build Quality.....8
Value.....7.5

The Gigabyte Monitor Integrated Box T3140 is a small form factor system with a black bodied chassis. It has a facility to attach a monitor on the chassis. This helps in saving space for an external monitor stand. The chassis is made of strong metal and the build is quite sturdy. The glossy front panel has the power button alongwith the two USB ports and the speaker and micro-phone jacks.

On opening the chassis with the help of thumb screws on the rear end, we notice that it is neatly compartmentalized for optimum usage of space. There is a 160W Gigabyte power supply for the entire cabinet on the left hand side and space for a Mini-ITX Motherboard on the right. Heatsink has to be chosen keeping the limited height of the chassis in mind. A 6 cm fan is located on the right hand side with space for a slim ODD and a 3.5-inch HDD.

The monitor stand can be set up on top of the chassis which has two grooves for the stand. It is screwed from behind to provide additional stability to the stand. There is a hinge lock system to raise the stand. It is done by applying pressure on the stand and then moving the lock according to the direction indicated on it. Once the stand is upright, the VESA standard slot can be inserted into the upper-most projection of the stand to which an LCD monitor can be attached with the help of four screws.

This is an ideal product for small offices where space is at a premium. At Rs. 3,999 plus taxes, it is a decent buy.

masses. d Microsoft's Steve Ballmer unveils HP Tablet. Being pre-emptive are we? d Suing frenzy - Kodak sues Apple, Blackberry over imaging technology infringement, US sues Intel

Cowon iAUDIO E2

Screenless marvel

On first glance, one may be excused for thinking the Cowon iAudio E2 audio player is a bottle opener. The Circle + Square design of Cowon E2 Audio player is minimalistic but striking. Screenless audio players come with the most basic features, but the E2 goes a little further than that.

It comes with a 3.5 mm audio jack. This jack is also used for data transfer via a 3.5 mm to USB cable which is also bundled. As many as eight BBE audio modes are voiced out by a female voice to keep you engaged. Pressing this button longer enables the shuffle on/off mode. Sound quality is crisp but it does tend to screech at maximum volumes in certain modes. It supports MP3, FLAC, OGG, WMA and WAV audio formats. A big plus is the quick charging time of under two hours. It lasts for a good 8 to 10 hours on a single charge. A big negative is the absence of the ability to skip folders. So if you have many songs then be prepared for exercising your fingers. FM radio is not available.

At Rs 3,600, it is priced similarly to the 4 GB iPod Shuffle that has a similar feature set.

Specifications

JetEffect modes, supports MP3, FLAC, OGG, WMA and WAV, Frequency **Range**: 20 – 20,000 Khz, **Capacity:** 4GB, Weight : 16.6 grams, SNR : 95dB, Internal Lithium Polymer Battery

Contact

Lipap Systems Pvt. Ltd
Phone: +91-22-2874 3457
Email: iaudio@lipap.com
Web site: www.cowonindia.in
Price: Rs. 3,600

7.5/10

Features	8
Performance	7
Build Quality	8
Value	7.5

Epson Stylus Tx210

An all-round good all-in-one!

Specifications

Maximum resolution: 5760 x 1440, flatbed scanner, 1.5 inch LCD Screen, Card slot, 5.7 kg

Contact

Epson India Pvt Ltd
Phone: +91-80-3051 5023
Email: ravishankar@eid.epson.co.in
Web site: www.epson.co.in
Price: Rs. 5,999

7.5/10

Features	8
Performance	6.5
Build quality	7
Value for money	7.5

Epson Stylus TX210 makes a great impression on the first look. The black body with a patterned glossy finish on the top, the colour LCD screen with a bright backlight, the strong buttons onboard, facility to insert memory cards, sturdy trays make this MFD score full marks in the aesthetics department. It does not have a network port. The printer is quite good in the Normal and Fine modes, but if gives very poor quality prints in the Economy mode. Printing an A4 size photo print in the Fine mode on a glossy paper took 3 mins 30 secs , so it takes a lot of time to give quality prints. Thus it cannot be used in places which require fast colour prints, as the quality is severly compromised as was revealed in our tests.

Scanning documents is a cakewalk. The Epson Scan application comes in the software CD. As the resolution increases, the time to scan the page increases. It took 40 secs at 300dpi and 5 mins 58 secs at 720dpi for a full A4 size photograph with excellent quality.

The Epson Scan is a very user friendly software and gives varying amount of flexibility to the user depending on the mode selected. Printing via the SD card slot also makes life easier. No need to transfer images on the computer.

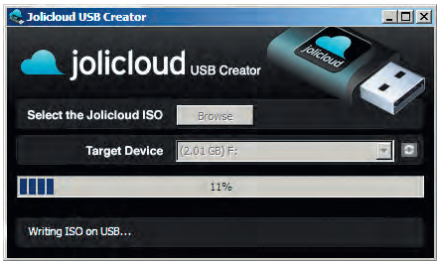
At Rs 5,999, it is a very decent buy. Its an ideal home printer solution and the scanner and copier functions add to its versatility.

alleging illegal use of its market power to stifle competition d Gigabyte gets on the Android bandwagon, Android based handset pictures leaked.

Jolicloud - the most Cloud ready OS

Aditya Madanapalle
aditya.madanapalle@thinkdigit.com

Jolicloud is one of the most mature netbook operating systems we've seen, and it has borrowed the best elements from existing ones to create a fresh, innovative, and very comfortable OS for netbooks. It looks better than Moblin - is fast (but not as fast as Chrome), and has recently come out of closed Alpha testing. The version available now, and included on the DVD is a pre-beta release, so the OS is still pretty much in development. Despite the pre-beta tag, if you need an OS on your netbook that handles cloud applications as well as desktop ones, Jolicloud is something you should try out, and we expect you to love it.



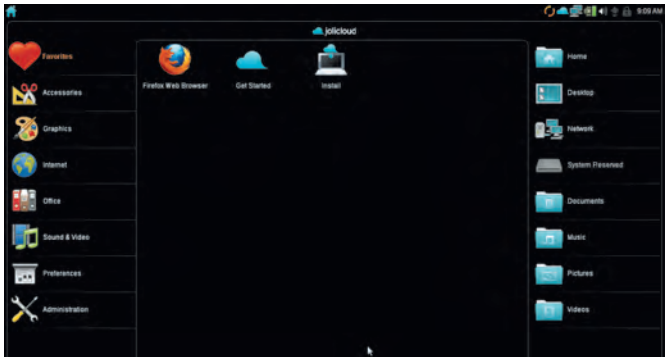
Using the USB creator to make a USB drive installer

Installing Jolicloud

The installation process is very simple. If you prefer to run it as an application on your Windows desktop, then Jolicloud offers the OS wrapped in a virtual machine, that you can run from a window. This is an EXE file, which is more or less what the OS has to offer when installed. The ISO file is an install disc, but acts as a Live CD as well, so that you can have a look at the OS without it leaving any footprints on your system. In the Live mode however, you cannot install applications.

The Windows install is called Jolicloud Express, double-click on the .exe file, and the installation starts. Jolicloud will treat the application as an OS within the wrapper, so you have to specify all the information as if you are setting up an actual OS. This includes a login name, a network name for the machine, and any proxy information that you might have.

The installation takes up 8 GB of space on your hard drive by default, but this can be changed using advanced options. Once installed, you can try out Jolicloud as just another window. To install the OS on a computer, you will have to burn the ISO image as a bootable disc using a CD burning application such as MagicDisc. Once burnt, insert the CD into the tray, and restart the machine. Hit the [F12] button during load time to get the boot menu, and select Boot from DVD Drive. If you have multiple media drives installed, choose the drive with the CD in it. You can then either choose to install Jolicloud right away, or start a Live CD session before using a GUI installer on the desktop. If installing alongside Windows OS, or another OS, you will have to choose to make space for Jolicloud in the same partition as Windows. Be careful in this step, and backup important data as choosing to use an entire hard disc will wipe the Windows install, and all your data with it.



The Jolicloud dashboard

If your netbook does not have a DVD drive, then you can choose to install Jolicloud using a USB drive. For this, you will need an application that converts a USB drive into a bootable device, using the Jolicloud image file. You will find this application on the DVD as well. You will first need to install Jolicloud USB creator installer on your system, then run the USB creator. You will also need a USB drive that has more than a GB of space. Be sure to backup any files that you have on the USB drive, as the installation process will wipe the drive clean before creating the installable drive. Start up the USB creator, and locate the ISO image for the Jolicloud installation. Then, locate the USB drive from the dropdown box. If there is only one USB drive connected to the machine, that one will be selected automatically. To be safe, be sure to disconnect any external memory that you may have. Your USB drive wont be recognised as a regular memory drive on your Windows machine once the USB creator is through with it, and Windows may prompt for a format, ignore this prompt. Insert the USB drive in the netbook, hit [F12] and select USB hard disk to boot and install Jolicloud. Before the USB drive is usable again, you will have to format it.

Setup and optimisation

The dashboard is fresh and functional. The applications are listed on the right, and links to important system folders are listed along the left. Jolicloud offers a great middle ground between the traditional desktop based interface, as well as a cloud OS running from the web. By default, Jolicloud uses Mozilla Prism for running all the web applications, where

each app is basically a page loaded in a Firefox window. .

Prominently at the centre, is a "Get Started" icon. Use this to setup and optimise Jolicloud for your device. You can setup a Jolicloud account, which will be authenticated over email with a code. You will have to setup a username and password, which is different from the username and password for the computer. This is a Jolicloud profile, which you can either fill up, or you can simply login using your Facebook details, which does not need an authentication message.

There is also an option here to select the model of the netbook you are using. If you are installing Jolicloud on a desktop or nettop, just choose "Other Unrecognised Machine". If you are using a netbook, chances are that your model number

The Jolicloud application manager

is listed in the long list of supported models (98 per cent of all netbooks).

Once this is done, you can head over to the Preferences and Administration sections of the dashboard for further customisation. The view is similar to the Control Panel in Windows or Mandriva, so even users new to Linux should be at home tweaking the settings. There are some useful settings that have been removed from obscure tabs and brought to the forefront, keyboard shortcuts is one example. By default, Jolicloud should apply most of the relevant shortcuts, including the multimedia keys, but you can further customise the setup or choose options that you are more comfortable with it.

Installing applications

To get on to the Application Manager, click on the Yellow Down Arrow along the top bar. This starts the application Dashboard, which contains a large database of both traditional desktop applications and web applications into a single interface. This means that you can install GIMP and Pixlr, one a desktop image editing application, and the other a cloud image editing application alongside. When you run a cloud based application, the web page is opened as a separate Firefox window in full screen mode, so there is no discernible difference between a web app and a desktop app, which is great.

There are featured web applications from different providers with one notable exception, being VLC. The applications are sorted into groups based on Accessories, Development, Education, Games, Graphics, Internet, Office, Sound and Video. Additionally, each category can be listed according to different priorities, either by popularity or date. You will find many familiars such as Last.fm, Dropbox, Facebook, Gmail and Spotify among others. There are also a whole bunch of little known web applications that are just waiting to be discovered.

Internet applications on Jolicloud

You can also install traditional desktop applications using the application manager. If there are a few must have windows applications that you simple cannot do without, then you can install Wine as well, and try to run the Windows applications on a Wine layer. This is not advisable if you are multi-booting though, as it is a waste of resources.

Once web applications are installed, they are pinned to the top bar in the form of tiny icons that can be clicked to open the window. Jolicloud does not accumulate web applications into tabs in a single browser window. One strange thing that users will have to learn to live with is the lack of a restore or minimise button. Although you can open multiple windows, they are always maximized, and you have to click on the home icon on the top left corner of the window, which is the link to the dashboard, and doubles up as a rudimentary start button. The location of the "close" button is right next to the address bar on the window, which is about halfway into the top bar. This minor deviation is easy to get used to, as there is a lot of screen real estate saved over for actually using the web or the applications. There are some grey areas though. Installing the desktop Last.fm client is a little painful and roundabout. You can choose to install Chrome on the machine, instead of the default Firefox if you prefer Google's browser for any reason. Most audio and video files play out of the box, so codecs are not really a problem with Jolicloud.

Should you use Jolicloud?

Jolicloud is pre-beta, so despite the apparent lack of bugs, there are many things left to be polished. Jolicloud is one of the more feature rich and easy to use free netbook operating systems available. While Jolicloud offers a great range of net content, there is always the offline system to fall back on, and the internet is not strictly necessary to work on Jolicloud. Connecting to Wi-Fi is reportedly easier on Jolicloud than on Moblin or Chrome, so if you have significant problems with other Linux based netbook distros, Jolicloud is the perfect OS to try.

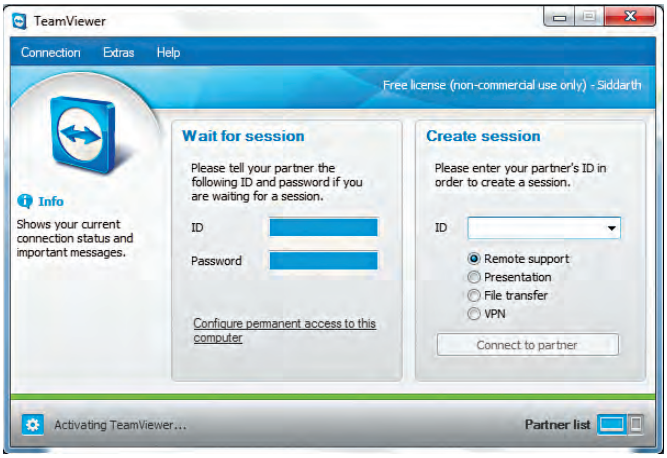
Teamviewer 9
Spybot Search and Destroy 10
Ditto: Copy more 12
Anti-virus suites 13
Windows 7 15
Process Explorer 16

Teamviewer

Teamviewer is an excellent collaboration tool with features such as remote access to your PC, and can help you access and share files across PCs. The setup is a small (2.6 MB) file and is available for free at www.teamviewer.com.

The System service is ideal if you want to use your system as a server with complete remote access. Click Full Access, during the installation process. Frequent permission requests get extremely irritating to most users.

Teamviewer generates a specific ID for your computer (not IP) based on your hardware configurations. For those worried about security, TeamViewer ensures all connections are encrypted and protected from external access – even from themselves.



TeamViewer's easy-to-understand startup screen

The main window, as you can see, has two major functions – it allows you to initiate a connection (outgoing), and at the same time lets you connect to another PC running TeamViewer.

To wait for a session, you need to provide the person with your unique ID and four-digit passkey. If you wish to make TeamViewer a Windows System Service, you'll need to provide a permanent password. This should be displayed as User Defined instead of the 4 digits.

Click on the Password field. You may change the password (dynamic = random), copy it to the clipboard or set a user defined one. To Create a session, enter the ID of the person you're trying to connect to. Your TeamViewer has three modes:

1. **Remote Support:** This allows for remote control and desktop sharing.
2. **Presentation:** Here, you may show either your desktop or a single window
3. **File Transfer:** As is obvious, enabled for transferring files
4. **VPN:** For this, TeamViewer VPN must be installed, hence we shall skip it's functionality

Enter the ID of the person you are trying to connect with, establish a connection with the Remote Support option. This way you can control the remote PC using your mouse and keyboard.

In the title bar, ther person's name or ID is displayed. The toolbar below this has some additional options:

Switch Sides

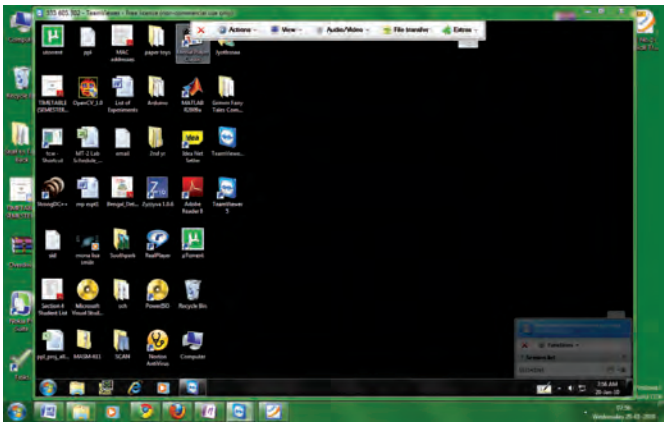
This allows you to change the direction of control. That is, your partner will now be able to control your computer. This has many multifaceted uses, especially when jointly collaborating on projects.

`[Ctrl]+[Alt]+[Delete]`

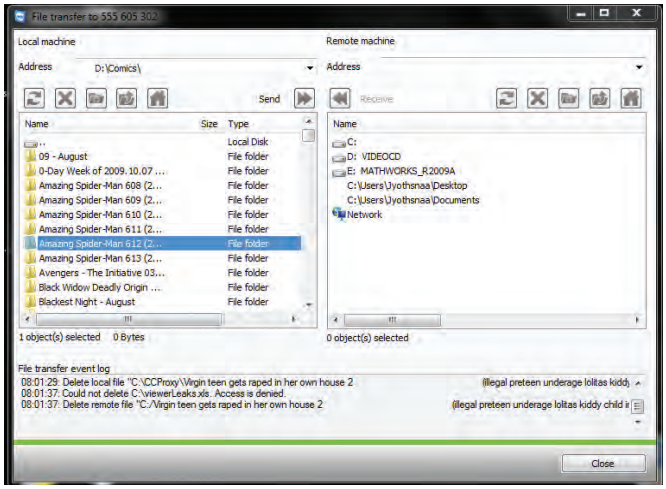
As expected, this actually sends the three-button combo and allows you to access the taskbar of the other person. This feature, is however, only available if TeamViewer is made a Windows System Service. You can do a Remote Reboot to log off, restart or restart in safe mode. Disable Remote Input disables the mouse and keyboard of the remote PC. Show Black Screen prevents the person from seeing what's being done on his computer. You need to Disable Remote Input to do so.

View has several options, allowing you to adjust and optimise Quality and Speed. You may also scale and change the viewing resolution. This ensures the difference in resolution doesn't cause errors. If the remote PC has multiple monitors, you also have the choice of displaying all of them simultaneously. Other options include selecting windows, showing the desktop, a manual screen refresh, removing the remote computer's wallpaper, and the ability to show or hide your partner's cursor.

Audio/Video options allow you to make VoIP calls, Video Calls, IM type Chat and conference calls. The File Transfer dialog allows you to transfer files between the two computers. Other options (Extras)



Lend a supportive hand, remotely, using TeamViewer



Transfer files to a remote computer easily

include features to record your session as a video. This helps in case you're working on a project (say, a graphic design scheme), so you can later analyse your actions.

File transfer actions

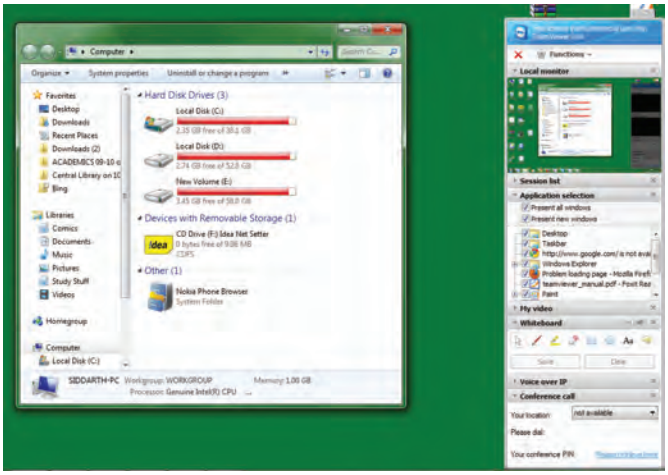
You have complete control of both computers and can transfer files to and fro. Your file system appears on the left and the remote computer's system on the right. The record of all fies accessed and all operations is recorded in a log on your partner's computer.

In the presentation mode, your computer shares its desktop. If the remote PC doesn't have TeamViewer installed, your PC can be accessed from it by entering your ID and password at http://go.teamviewer.com.

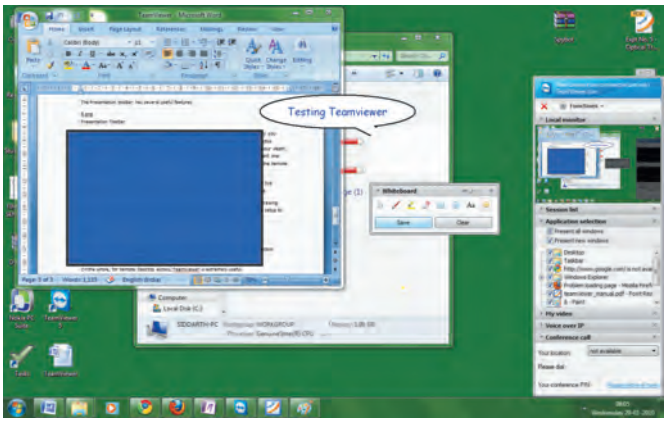
Presentation toolbar

Apart from moderating the flow of the presentation (pause / continue) where basically you control whether your screen is displayed live or not, you may also remove the wallpaper (this improves performance), adjust quality settings like bandwidth, frames per second, colour depth, Windows Aero and other minor tweaks. Similar to the Remote Support Mode, you may have one monitor or more, with a maximum of four monitors. The other options are similar to the Remote Support Options.

The widgets allow for video, where you can control your webcam, VoIP so you may give a live presentation, and a conference call option. You can also chatting via the IM interface.



Use the Presentation toolbar to choose what to display



Use the Whiteboard to collaborate better

What's cool is the literal use of the Presentation interface. TeamViewer allows for a drawing palette with presentation tools like markers, erasers and an elementary MS-Paint like setup to draw and modify your current presentation, similar to blackboard learning.

So that's how you use TeamViewer. Advanced users can fiddle around with the connection options, make groups of people, try out VPN and LAN connection and more.

Spybot Search & Destroy

The intrusion of spyware into modern day computing is well known. From cookies to key loggers to dangerous malware, almost everyone who's accessed the internet has been warned about the dangers that lurk out there. Spybot Search and Destroy is one of the most popular and most effective clients out there, its reputation only bettered by the fact that it's freeware (available at www.safer-networking.org).

The moment you install, you're asked to backup your registry. This is a good recommended step. Occasionally, programs such as Spybot remove items in the registry. However, if these ad programs or cookies are essential to some program, then it could cause trouble. Once you're done with that, click next, check for updates, immunise your system (this basically stops the most common spyware from attacking). Read the help file for more support.

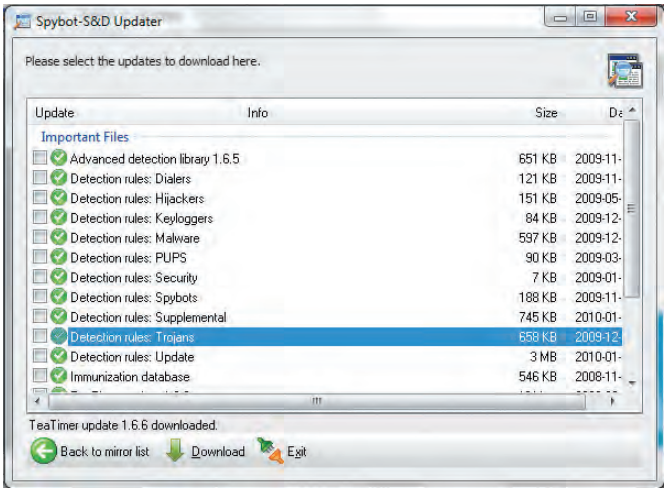
Of course, the same options that you covered can be done again from the main screen. It is recommended that you check for updates frequently. Ensure you have all the updated files before starting.

Click on Check for Problems to begin. In case you have any temporary files, Spybot offers to clean them up for you before scanning. Scanning is usually a long process depending on how much memory your computer has.

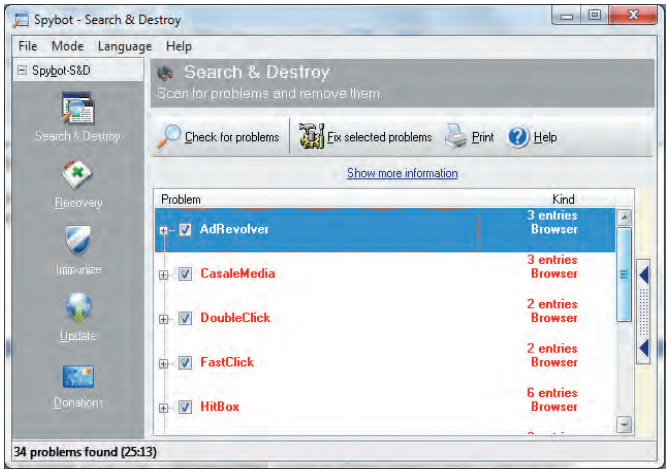
Spybot usually displays hints. If you're a first time user, it would do you well to heed them. Else you can always click on Hide and see the main screen. The main screen shows a list of files and bugs that it recognises as spyware and displays them. Hopefully, if your system is clean, it should show you a plain white front.

Once you start seeing a few entries, click on the dotted bar with the two blue arrows on them. Then click on an entry. It'll show you the details of the item.

We found a Web Trends cookie in our spyware list. Read



Updating spybot during the install process itself



Whoops! Apparently, even our computers are not spyware-proof

the description to see what it does. For example, the tracking cookie (from the company Web Trends Live) had the following description: Uses information about your web surfing that could include any information like accounts and passwords, which is clearly unwanted.

Spyware and similar threats are indicated in red, while the green entries are usage tracks. You need to know which are essential and which are not. Sometimes, you may be using programs that send back information on your program usage; Spybot might detect these as spyware, so instead of blindly selecting all, select only those you know are definitely spyware. Usage tracks are basically records or logs that the system stores. You need not remove them, but if you are essentially paranoid or are finicky about space, you may. Note that stuff like the list of most recently opened Word documents, and other shortcuts could make it to this list.

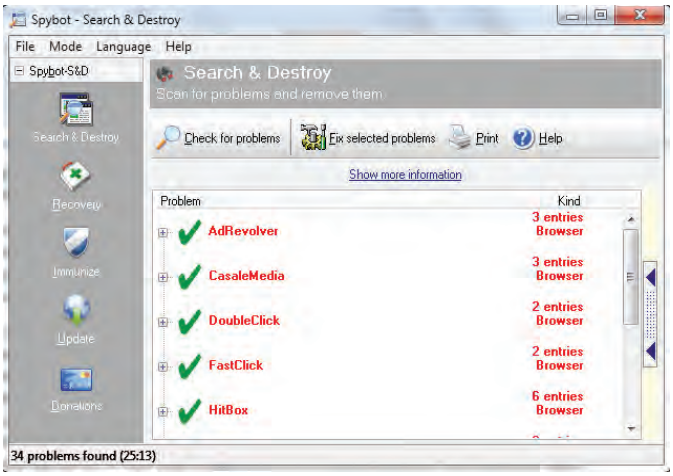
What you need to focus on are the red entries, read up the information, or if unavailable, search for it on the Internet. Once you've assured yourself it is spyware, check the box next to it. Spybot does not insist that you delete all spyware, it merely urges you to do so. If you believe a certain program is vital to another's functioning, you can decide to keep it. Once done, you may click Fix Selected Problems.

Once done, it should show you a bright green tick which means your problem has been eliminated. Occasionally, it does get difficult to get rid of certain problems. For this do the following:

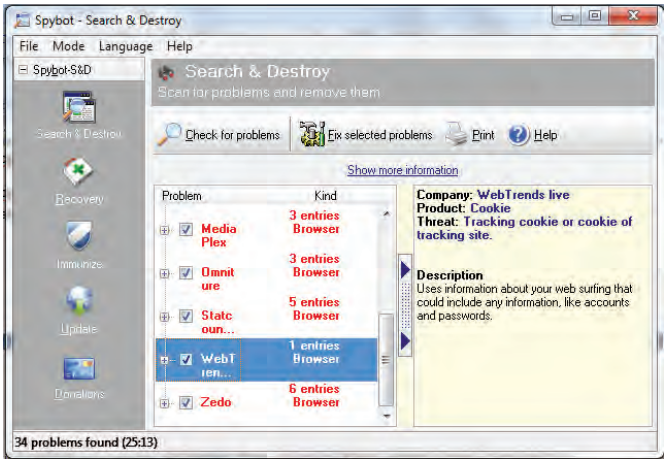
1. Search for it on the internet, and see if there's a certain program affiliation that's preventing it from getting deleted.
2. Try a new anti-spyware program (Unlike anti-virus programs, multiple anti-spyware programs can be installed, however real-time protection on many could cause problems).
3. Find the exact details of that particular file and delete from the registry.

The last resort is recommended only for advanced users who've tampered with their registry before. For those who wish to try more advanced options like the ability to tell Spybot to permanently ignore certain programs or file extensions or system internals you may do so by configuring Spybot in the advanced mode. On the main menu bar go to `Mode > Advanced Mode`. In advanced mode, there's one more benefit – you may click "Select All" as opposed to selecting or unselecting each and every item found.

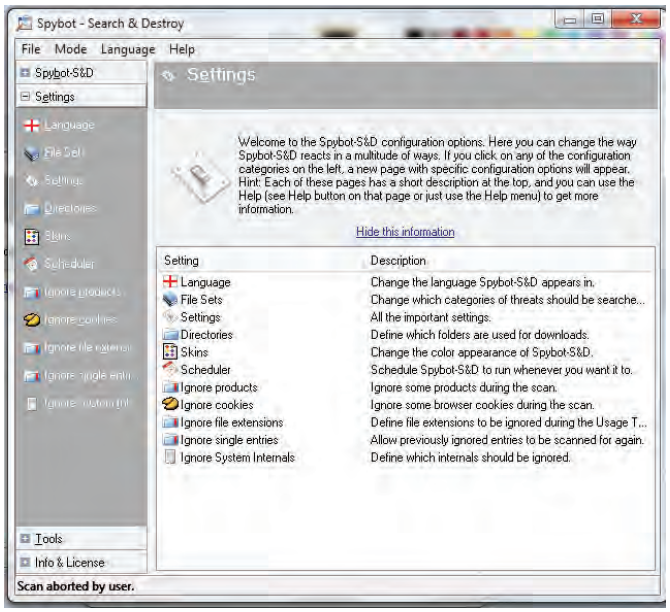
You may also do some basic tweaks to your system directly from Spybot like change your start-up options. A lot of spyware products, especially toolbars that get installed on your system start along with your operating system. Hence, you should review them. In



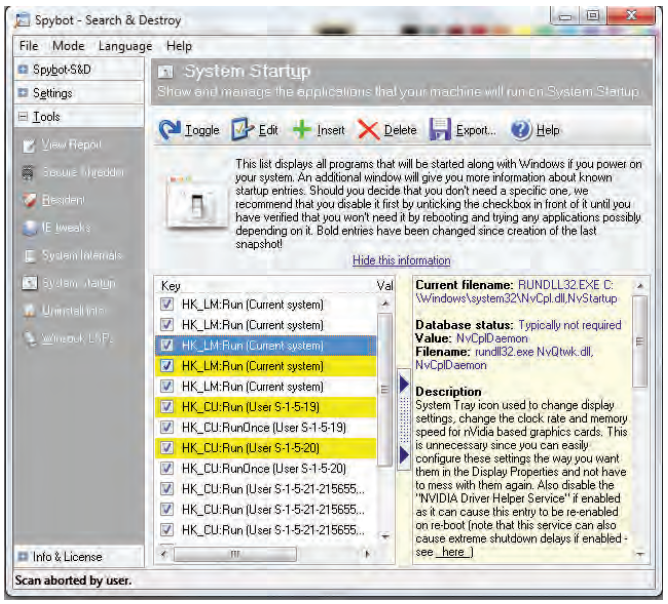
Die silly spyware, die!



WebTrends sounds so harmless, right? Wrong!



Use Spybot's advanced settings to stay more secure



Spybot gives you more control over applications that start with your PC

the advanced mode, click on tools. A comprehensive list of tools is provided which you should try for yourself once you're completely acquainted with the software. Some of the tools are: a secure shredder (to completely delete files), a resident shield, IE Tweaks, System Startup Tweaks, a Scan which checks the integrity of your registry, an Uninstall Wizard, and a list of all the network drivers and protocols.

On the whole, Spybot Search and Destroy is a very effect anti-spyware cleaner and monitor. For those who wish to secure their computer, and wish to keep it clean, Spybot is a must-install.

Ditto: Copy more

Sheer limitations in Windows and Office's clipboard such as the lack of permanent memory, and other features may not bug you, but it's irking sometimes to have to do things the long way. Ditto is a free and open source application that serves as a clipboard manager. You can download the installer from http://ditto-cp.sourceforge.net. Unzip the file. Copy it to a folder and run Ditto.

Ditto runs as a small tiny icon on your taskbar. Now, when you use an application such as Office or a web browser, copy text using [Ctrl] + [C]. Click on the Ditto program and you'll see how Ditto copies everything you do.

What's cool about Ditto is how it seamlessly runs in the background. Like a lot of programs, it has the stay-on top feature that is useful so you don't have to keep minimising and maximising. Ditto also monitors functions such as Print Screen. So press [Print Scrn] on your keyboard and you'll see a miniature version of your desktop in Ditto. Ditto also works with Cut ([Ctrl] + [X]).

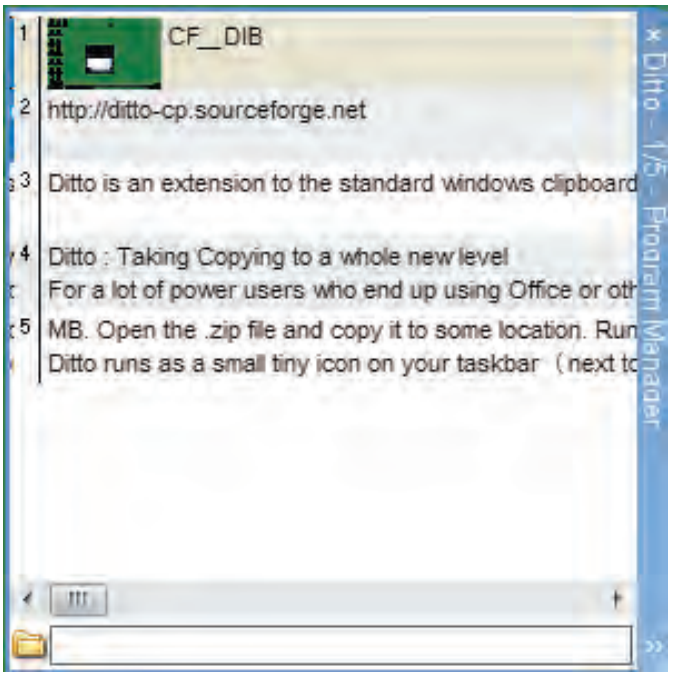
Once you've copied, simply go to the program you wish to paste some of the items in, and double-click. Alternatively, drag and drop. Simple? To paste multiple items, select all them. You may use the mouse, press [Shift] or to select items which are not sequential, press [Ctrl] and click on them.

Ditto also features a useful search function that searches and filters as you type. Next to the filter bar is a Double Arrow (>>). Clicking on it collapses Ditto into a thin vertical bar that can stay unobtrusively in the background while you work with your programs. Quick Paste ([Ctrl] + [V]), as is expected pastes the most recent thing copied.

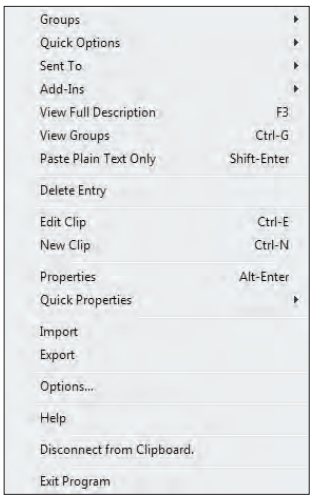
You may even press the Close button on the Ditto screen or Exit the program entirely. On restart, your old copied items are still saved.

Right-clicking on the Ditto interface gives you a few features. Quick options allows you to modify basic things such as the number of lines you see, the positioning, the font that is being used, change what happens when you double-click the caption bar, and more.

You may also edit a copied entry. It's features such as these that set it apart from the Office clipboard. Right-click on Entry, and select Edit Clip. It opens a Text Editor that'll let you change the entry. While you'd expect a



Ditto's simplistic interface is a breeze to use



Ditto's right-click quick options

simple Notepad type interface, it's goes one step ahead by adding support for bullets and fonts.

Let's take a quick look at the options. Right-click the icon on the taskbar. Click on Options to see a huge list of tweaks you can make to customise Ditto.

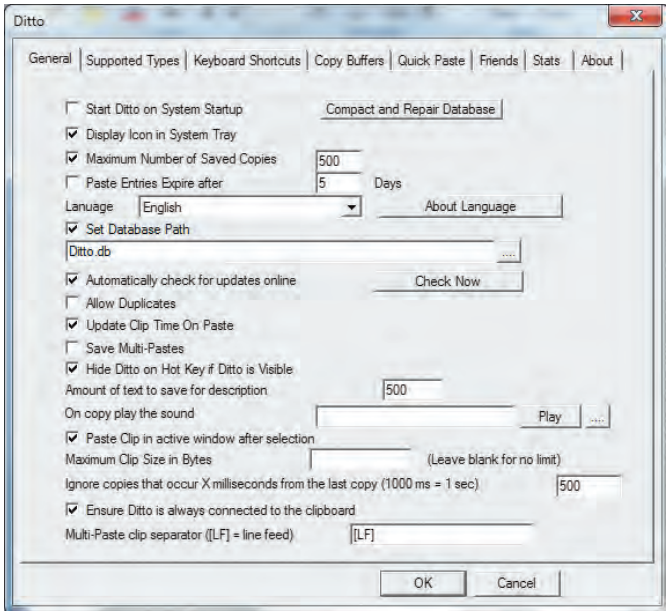
You may choose to Start Ditto at System Startup, choose whether or not to display the icon in the system tray, modify the maximum number of saved copies (500 default – which is quite impressive), decide whether or not the entries vanish, and if they do, after how long, or are they stored in memory indefinitely.

After you reach the maximum limit, like all clipboards, the oldest entry is removed. However, if you've marked it as Never Delete (`Right-click on Entry > Quick Properties > Never Auto Delete`), it'll stay on in memory.

You may also make nice small tweaks. What was interesting is the Ignore Copies functions. For example if you keep `[Ctrl] + [C]` pressed, or if you copied the same thing twice, Ditto will ignore it. It has the functionality to ignore copies that occur X milliseconds from the last copy. You may also choose to play a sound on copy.

On checking Update Clip Time on Paste, it will set the Time of the entry to the time it was pasted (Current) and take it to the top of the list. (Note: This works only on double-clicking and not on Drag and Drop operation). The other categories in Options allow you to modify keyboard shortcuts, assign quick-paste keys to the last ten copied items and change the type of files allowed (Rich Text and Unicode). The Quick Paste subcategory has more options as to how History is organised, whether text is displayed or just the entry number and whether thumbnails should be displayed for image items.

If on a network, you can add Friends by entering their IP addresses in. By right-clicking on an entry and using Send To, you can send your clipboard to a maximum of 15 computers.



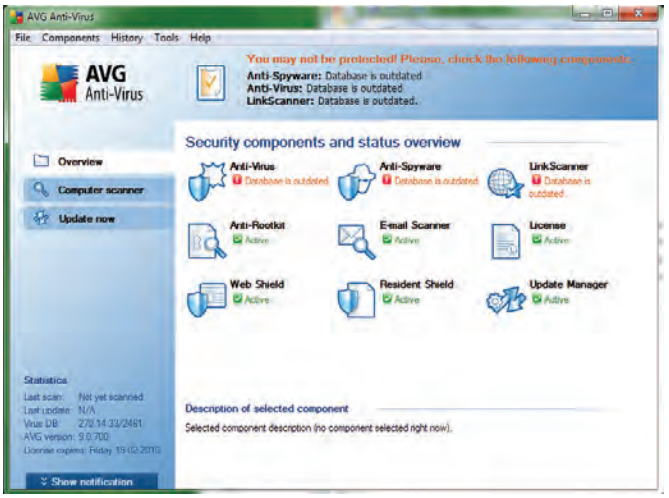
Use the options to tweak Ditto to your tastes

Anti-virus suites

Almost all security suites have anti-spyware, a firewall and other features, but some minor features take the cake. It's these that we shall focus on. We'll compare the features of some of the most popular anti-virus packages, namely, Avast, AVG, Norton, Kaspersky, and TrendMicro.

Boot time scan

A boot time scan lets you scan your full HDD even before Windows starts. The



Most anti-virus suites have a home screen like AVG's, shown here

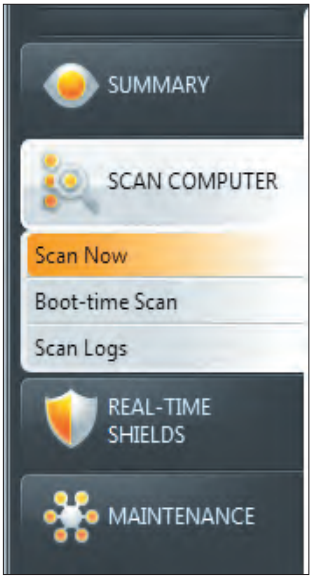
Of course, you'll need to decide a password and use it for encryption, but advanced users can figure this out on their own.

Go to `Options > Status` for a nice Odometer to keep track of how frequently you use Ditto. Other nice features include Theme support and options to check for updates. On the whole, even if you remove all the other fancy features, the essential utility in Ditto is brilliant. A very compact clipboard that stays on top of all your applications allowing you to store as much data as you need. We would recommend it highly as a must-use for all those who do a lot of editing or use Office or browse the web on a regular basis.

main advantage of this over a normal scan is that most dormant viruses and malware that aren't detected easily during a normal scan are easily found out and removed. Another advantage is that boot-time scan bypasses the Windows file system drivers and uses direct disk access that results in lower scan time and detection of background root-kits.

In Avast, open the main Avast user Interface, right-click and select `Schedule boot-time scan` from the context menu that appears. Next time you restart your computer, Avast will perform a full system boot-time scan.

With AVG, you can change the settings in the Options menu. The scanner option has the ability to modify the set-



Click on Boot time scan in the left side context menu in the user interface

tings. Kaspersky does not have a boot time feature.

Screensaver mode

Many security suites allow you to run a full system scan whenever the computer is idle. For a lot of systems, a full system scan can slow down your system. In Avast, for example, you can schedule a full system scan whenever your computer is idle by using the anti-virus screensaver feature. It can even be run over your normal screen saver. Whenever your computer is idle for the time that the screensaver is set to come in, Avast will start scanning for viruses and pause immediately once you come back to your computer. To enable this, go to your screensaver properties window and select `Avast! Antivirus` from the list.

In other software suites, it may not be called Screensaver mode. Instead, like Norton, it is referred to as Idle Time Scanning. Norton can perform scheduled scans when your PC is idle if the "Only run at Idle Time" option is selected. Select the `Settings > Task Scheduling > Idle Time` option.

Other systems optimise their scanning to ensure that normal functioning is not disturbed while scanning. Features such as Fast Scan and optimised background scan are prevalent.

Silent mode

Most security suites have realised the importance of disabling notifications so as to improve the user experience. Except TrendMicro, all the security suites we reviewed for features had an option, either as Silent Mode or Gaming mode or a similar name.

Avast has it, in its main user interface. In Kaspersky, right-click on the Kaspersky icon on the taskbar and click on `Settings > Gaming Profile`. Click on enable `Gaming Profile`. You have the option to disable scans, disable updates, or instead of notification, just take action automatically. Kaspersky chooses the best course of action based on the threat rating and previous choices.

Norton has both options – Full Screen Detection (Gaming mode) and a Silent Mode. It activates automatically when you watch full screen applications. Similarly, Silent Mode is a manual operation to do the same. You can do so by going to `Settings > Administrative Settings`. In the Silent Mode Settings, set the Silent Mode to `On`. In the Turn on Silent Mode Box that appears, select the duration from a drop-down list.

Mail Shield settings

AVG Firewall includes a "Game Mode". This can be set under Settings. Alternatively, click on Firewall from the Main Control Center and enable Game Mode.

Anti-spam

If you use webmail services such as Yahoo!, Gmail or Hotmail, chances are email is secure. However, if you're using a client such as Microsoft Outlook or Thunderbird, you have to independently scan your mail for viruses. This feature all security suites have. The new Avast v5, goes one up by having a fully integrated anti-spam feature.

In all security suites, you have the option of customizing the sensitivity level of your detector. Go to Real Time Shields or Email Protector, or Mail Scanner or whatever it is called in your antivirus program, go to settings. Chances are, to specify the level of customisation, you may have to go to Expert Settings or Advanced Settings.

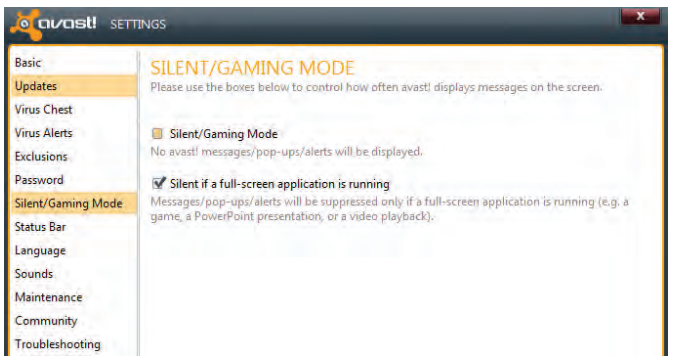
The same sort of sensitivity specification is not restricted to the Email scanner. All Firewalls also have the same feature (some even have a program specific option).

Auto USB detect

Though the manual scan option is available to scan specific folder files, some security suites can automatically detect when an external drive is plugged in. Some can even erase malware without notifications. If your anti-virus doesn't have this function, it's a good practice to scan your removable media for malware. In AVG, you can go to `Tools > Advanced Settings > Scans > Removable Device Scan`. Tick the checkbox to Automatically Heal / Remove Infections. Kaspersky and Trend Micro have the same feature enabled.

P2P Protection

Frequent downloads from unknown sources using a torrent tracker or a P2P file sharing program often pose a high risk. The security suite monitors all the recognised P2P programs installed for downloads and checks the files as they are downloaded (real-time). Avast has a P2P shield under its list of real-time shields. You can go to Expert Settings and change the list of programs that should be monitored. Kaspersky also has a P2P/File Sharing monitor.



Gaming mode settings

Windows 7

Whenever you open a program, folder, or file, Windows creates a corresponding button on the task bar showing just an icon that represents the open program. With the new Progress Bar integrated into the task bar, you can monitor on-going tasks and processes performed by their applications without having to keep the programs' window visible. The progress of functions including file copies, but also CD and DVD burning, downloads and installs is displayed dynamically via the Taskbar buttons, through the Progress Bar.

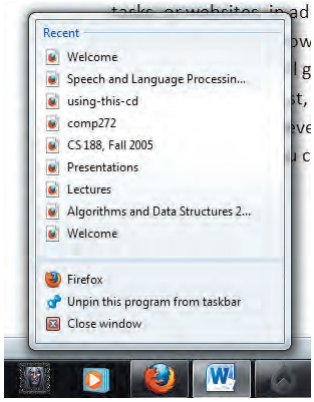
When you move your mouse pointer to a task bar button, a small thumbnail appears of the corresponding window. This along with Aero Peek, which makes every window on the desktop transparent except the one you're highlighting at the moment, makes sure that you find any window nearly instantly, no matter how many windows your desktop is buried under. To switch to another window, just click on the miniature version that pops out from its task bar button. You can even close it by middle-clicking, a feature which is common to most applications that used tabbed browsing.

You can use Aero Shake to quickly minimize every open window apart from the one you're shaking. It is a useless-but-neat feature that clears all the clutter for you without you having to minimize each and every window apart from the one you want to focus on. It is just a mouse gesture that lets you grab the title bar of the window you wish to keep open and give it a shake, and rejoice in a clear desktop area. Of course, you can use `[Windows] + [Home]` for the same functionality. It just adds that Zing to the new UI. You can even restore all of those windows by shaking the open window again.

If you highlight a small button on the bottom right corner of the task bar, all open windows will fade from view, for a quick peek at your desktop or gadgets, Windows 7's free-floating widgets.

Jumplists and libraries

In applications coded to take advantage of the jump list, when you right-click an icon, you'll get a pop-up menu which will give you quick access to recently opened items, frequently opened items, tasks, or web sites, in addition to any favourite items you've decided to pin. In Internet Explorer, it shows your recent browsing history; in Windows Media Player, it'll let you play recent videos; and Windows



Recent history in Jumplists

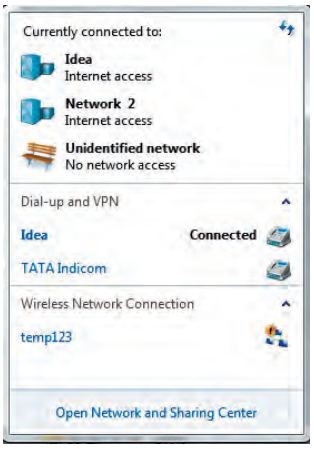
Explorer will give you quick access to frequently used folders and files. You can also pin favourites to a Jump List, so you can quickly get to the items that you use frequently. Jump Lists on the task bar contain several menu commands that you can use to close an item or unpin the program from the task bar. You can even drag an item off of a Jump List to copy it to another location or folder.

Windows Explorer has a great feature called 'Favorites', present in the left pane of the window. You can add your frequently accessed folders for quick access. Just left click the folder and drag it on the Favorites to create a link there.

In all previous versions of Windows, managing your files meant organising them in different folders and sub folders. Comes Windows 7 with its concept of libraries, which makes it easier to find, access, work with and organize files scattered across your computer or even over the network regardless of where they are stored. A library gathers files that are stored in several locations without actually storing your items or moving your files from the original folder. Libraries monitor folders that contain your items, and let you access and arrange the items in different ways like 'documents by type', 'pictures by date taken' and 'music by genre'.

Connect to the internet

Windows 7 makes it very simple to view and connect to networks on your laptop. Just click on the network icon in the task bar. View Available Networks displays all your wireless and wired networking options including Wi-Fi, mobile broadband, dial-up, LAN or corporate



View Available Networks and connect to them

VPN. One more click on any of them, and you're connected.

Old programs in Windows 7

Most programs written for Windows will work automatically in Windows 7, but there might be some issues with older programs and some might not even start. If a program written for Windows Vista, XP or even other older versions fails to run, Microsoft doesn't leave you in the blue. Like Vista, Windows 7 comes with a Program Compatibility Mode that simulates the behaviour of previous versions of Windows for that program. You can change the compatibility settings for a program either manually or by using the Program Compatibility Troubleshooter.

Right-click on a program and choose Troubleshoot Compatibility to launch the Program Compatibility Assistant. It detects known compatibility issues and notifies you if it finds anything and offers to fix it the next time your program is run. It does not make any changes to your program. It merely resolves conflicts with UAC giving elevated privileges to your program, or simulates an earlier version of Windows.

Manage your hardware

The new Devices and Printers folder available from the Start Menu shows you all the external devices connected to your PC. It is a handy way to check on a portable device which you carry with you and occasionally connect to your computer, such as mobile phones, portable music players, photo frames

The new taskbar

and digital cameras besides all the devices connected via USB, or paired via Wi-Fi or Bluetooth wireless interface including external USB hard drives, flash drives, web cams, keyboards, and mice. A multi-function printer now shows up as a single device in Devices and Printers, not as a collection of three or four components like it is displayed in the more conventional Device Manager.

Besides letting you view information about your devices, such as make, model, and manufacturer, including detailed information about the sync capabilities of a mobile phone or other mobile device, Devices and Printers is also an excellent place to check if a specific device is working properly and then troubleshoot problems in case they arise.

Process Explorer

Ever wondered what's running on your computer? For most tech enthusiasts, it's vital to have it all figured out. Complete understanding, if not complete control is a must. Though the Windows Task Manager does a decent job of listing processes, and memory usage, it's not enough for us geeks.

Process Explorer by Sysinternals, is a program for Windows that gives you full control over what runs on your PC. Get it for free from http://thinkdigit.com/d/procxp.

Getting started

To get started, just unzip the file, and run the EXE.

You can see everything that's functioning. Broadly, the processes you see can be divided into idle, Windows and explorer.exe processes. Explorer.exe processes are the ones we're interested in, because that's how most applications are run.

You get detailed information about programs – its icon, command-line path, image path, memory stats, security attributes, and a lot more. You can even examine all the DLLs it has used, the operating system resources it's using, and even track down processes that are using specific resources.

Multiple svchosts?

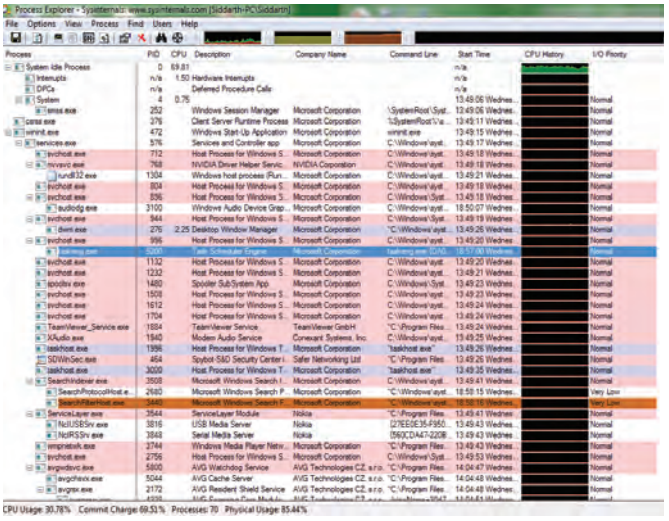
Go to the wininit.exe sub-menu, enlarge the services.exe group and you will see several svchost.exe files open. You could, of course, go to the Properties of each and monitor everything it's doing, but hovering your mouse over it does the trick as well. Going to the properties, has the added advantage that you'll be able to read and understand what each service actually does.

View more

If you're not overwhelmed by information overload, right-click next to one of the columns headers and click on "Select Columns". This way, you can see a lot more information about your processes.

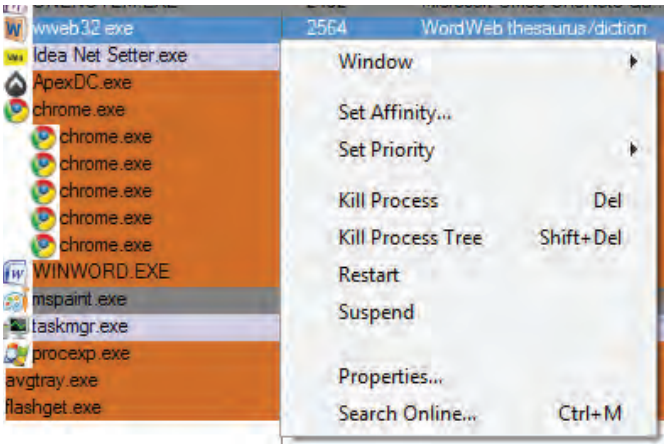
Suspend, not end

One scenario that Process Explorer is really handy for, is when you're infected with a virus. As most of us have experienced, the task manager is all but useless when it comes to helping us remove viruses.



You can see advanced details of all running processes

While the Task Manager gets disabled by certain viruses, and even if it's not, killing a rogue process usually just doesn't help, as it starts up again. With Process Explorer, you can choose to Suspend a service or process, instead of ending it. Just right-click and choose Suspend. You can resume suspended services from the right-click menu as well.



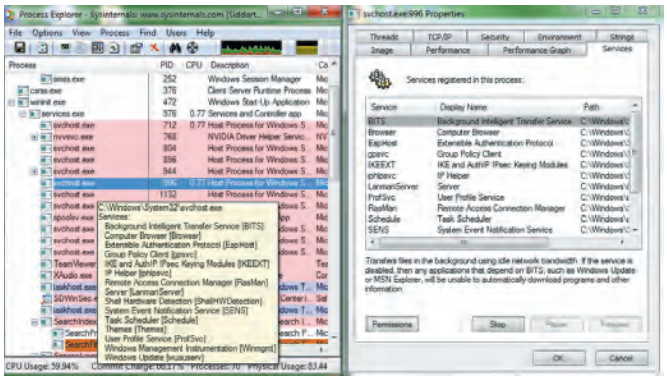
The Suspend option is a life saver when you're infected

Lower the pane

Go to `View > Show Lower Pane` (or use `[Ctrl] + [L]`). This will show you additional information about processes. You can also choose between viewing Handles or DLLs – go to `View > Lower Pane View` to choose one.

'til death do us part

If you prefer Process Explorer to Task Manager, just go to `Options > Replace Task Manager`, and from now on this app will load instead of the Task Manager.



Process Explorer vs. Task Manager. Fight!

How to keep objectionable content on the net at bay

Nimish Sawant
nimish.sawant@thinkdigit.com

For parents across the world, the internet is as much a bane as it is a boon, thanks to a massive presence of vices such as online predators and pornography among other things. With around 260 porn sites being registered everyday and 25 per cent of the search queries being porn related according to an international study, it is imperative to keep young children away from this growing menace. With the boom in internet penetration and the familiarity of kids with technology, the need for blocking pornographic material is high.

NetDog Internet Porn Filter 3.9.2

This is a very easy to use Porn Blocker which is light on the system and works very effectively. It can be downloaded from http://tinyurl.com/ykkk6ha

Setting a URL banned list in NetDog

Using the Filter

The user interface of the software is quite simple. It is divided into two URL lists : one for Always Blocked Websites and the other for Great Websites. You can add URLs to the list of Always Blocked sites or add a keyword using wildcard characters like asterisk (*) or question mark (?) along with words in case one is not sure of the complete URL. Adding and Deleting URLs pretty straight forward. By ticking the Block All option, you can further filter surfing to only those sites that are mentioned in the Great Website URL list.

Output

The software works quite well and blocks all the words in the URL list. As soon as the URL word matches the word from the Blocked URL list, the website does not load.

PicBlock 3

NetDog only allows you to filter content based on keywords, but pornographic images still pop up on our screens. To prevent such images from showing up, use PicBlock.

Installation

The software can be downloaded from http://www.cinchworks.com/download.html. Installation is quick and requires a system reboot for the software to start working properly. It lodges itself in the system tray and will be turned on as soon as your computer starts. Options can be accessed from the tray icon.

Configuring PicBlock 3

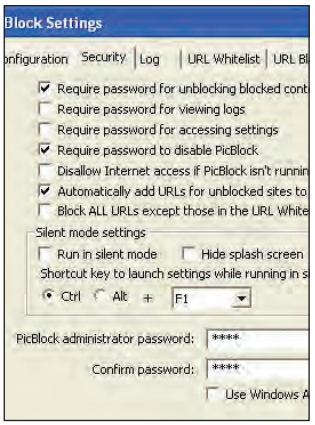
The main tab in the Settings menu of PicBlock is the Configuration tab. To get PicBlock working, check the Enable PicBlock option. It has options for setting the sensitivity levels of the blocking images, by clicking on the radio buttons indicating Mild, Normal and Strict. Advanced Filtering allows you to add more options to filtering like face detection, blocking web pages with explicit words etc. Many a times the software may block images which are perfectly harmless. To prevent this the user can Unblock those web sites either by right clicking on the PicBlocker icon in the system tray and selecting Unblock content or use a keyboard shortcut like [Alt] + [F12] or [Ctrl] + [F12]

URL Lists

This enables the user to set certain URLs as safe or dangerous in the URL Whitelist and URL Blacklist tab respectively. Using these tabs the user can set certain URLs which he wants to allow or block according to his needs. The list of URLs can be saved or another list can be imported as well using the Export and Add & Import buttons. Apart from URLs there is another tab called Words Blacklist which allows the user to block webpages based on the appearance of words on it.

Security

Since this software is meant to prevent the visibility of pornographic images, and it allows one to unblock restricted sites or images, a Security tab is provided to password protect actions. You (as a parent) can set an administrator password, so that your kids have no control over making any changes in the settings. By checking on the options, the enter password prompt may appear while unblocking content, viewing logs, accessing settings, disabling PicBlock among other things. This tab also has a Silent mode setting which prevent the pop ups from PicBlock when a site or image is blocked.



The security settings in PicBlock.

Performance

The blocked images will appear as pixelated areas. Sometimes, you will have to unblock perfectly normal images though.

Multicore
AMD to release six-core processors in the second quarter of 2010

USB 3.0
WD announces USB 3.0 range of MyBook external storage drives

Your problem is no problem to us!

This month, we look at Khatarnakh viruses, master/slave issues with hard drives, and much more

Khatarnakh virus!

Two months back, three viruses – Khatarnakh, Ghost and Xplorer attacked my PC. The Khatarnakh virus spawned a process called `khatra.exe` and the other two viruses spawned `ghost.exe` and `xplorer.exe`. These viruses have disabled my Control Panel and are not letting me change any settings. I tried opening it from `C:\Windows\System32\control.exe`, but it just displays a warning window with the message `This operation has been cancelled due to restrictions on your computer. Please contact your system administrator`.

In fact, there is no Control Panel icon on my desktop. I deleted the viruses from all the locations and even removed the registry entries. After deleting the viruses, other shortcuts such as `[Alt]+[F4]` have got enabled. I cannot even set my Desktop background and also the title bar of Internet Explorer displays "Internet Exploiter" instead of "Internet Explorer".

The registry editor is also disabled. I access it from "TuneUp Utilities 2008" software. My system has an Intel Celeron M Processor 530, 512MB DDR2 RAM, and Windows Vista Ultimate Edition.

Vinay

The virus problem is a little too complicated to get rid of manually. It would be easier to install an anti-virus solution from Kaspersky, ESET or G DATA. You should use an anti-virus to remove the infection. If all fails, you might have to do a clean install of Windows.

Random crashes

I recently upgraded my Acer system seven to eight months ago. It has an Intel Core 2 Duo processor, 2 GB DDR 2 RAM, and 320 GB hard drive. It was working fine for the last seven months, but all of a sudden it starts giving "Generic Host Controller" errors while surfing. Using the DOS window, Windows closes in just five to six seconds. I'm unable to run C++ compilers and environments.

To overcome this problem, I formatted my C drive and installed a licenced version of Windows XP and also activated it. On the second day, the same problem occurred. So, I tried enabling system restore, but it is shown as disabled by group policy. I have tried to enable system restore using the `gpedit.msc` command, but it doesn't work. I have formatted the system again. At present, the system is running normally and system restore can be done also. I have checked for virus also. System doesn't have any viruses. I have created two system restore points, but it is of no use in case "system restore disabled by group policy".

Harshit H. Desai

Firstly, Group Policy Editor is only available in Windows XP Professional. If you're using a different version, you won't be able to access it. Also, update to the latest Windows XP Service Pack 3. Try updating all your drivers for the system, and also run a thorough memory scan of the system.

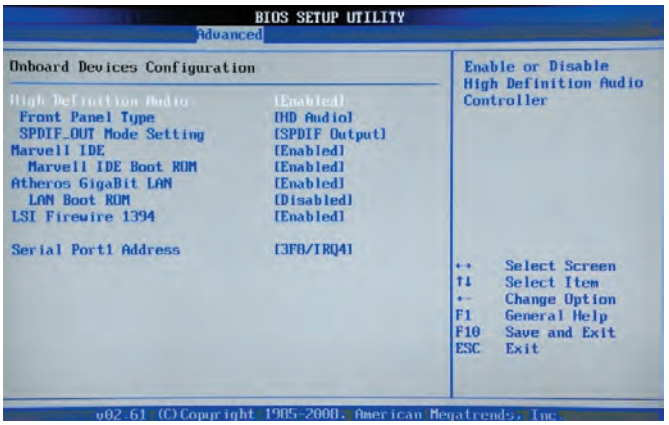
The random closing of the DOS window is really odd. It could be memory problems or just Windows. You should try a Windows repair instead of a reinstall. Viruses could be a problem. Try a different anti-virus or any of the free online virus scanners to be sure.

RAM not recognised

I just assembled my new PC with Biostar TA790GXBE motherboard and Athlon X2 245 with Windows XP SP2. The problem is that my computer recognises only 768 MB RAM instead of the 1 GB installed. My older Pentium 4 system recognised the same RAM stick as 0.99 GB.

The PC was assembled into a Zebronics cabinet. Everything works fine, except the front audio-in / out ports. Even the Realtek audio manager does not recognise these ports. My shop keeper told me this is a usual problem with present day cabinets.

Rajdeep Banik



Setting the audio controller to AC97 can allow you to use audio on front ports

Most motherboards with on-board graphics use a part of the system memory as graphics memory. This has to be set from the BIOS itself. If you haven't changed it, then it might be using the default 256 MB. We suggest upgrading to 2 GB of memory anyway.

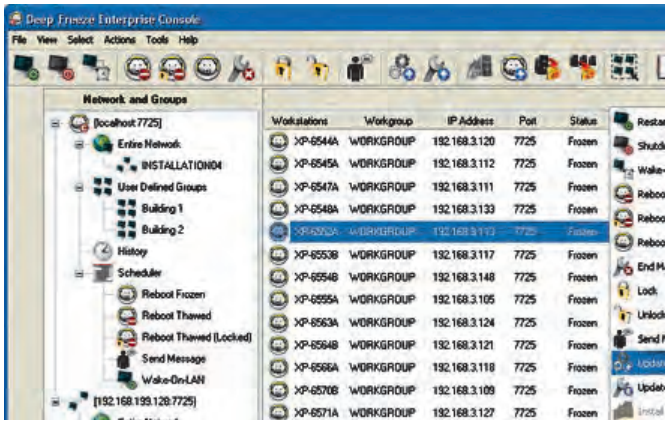
Most cabinets don't support HD audio on the front ports. You'll have to use the AC97 codec option in the BIOS and use those connectors from the motherboard to the front panel for it to work.

Frozen in place

I had installed Deep Freeze, but it isn't getting uninstalled. It does not show up in the Control Panel or in the system tray. I have manually ended the process through the task manager and deleted the software from the Program Files. After restarting the computer however, it comes back. What should I do?

Moshai Dada

One of the easiest ways is to try installing the software once again and then removing it from the Control Panel. Also, look for an uninstallation application in the installation folder or within the Start menu.



Deep Freeze helps prevent any kind of data damage or loss

Master and slaves problems

I have just assembled my new PC and am facing a problem while installing the OS. The BIOS detects the hard drive as Master, but it does not detect my DVD drive. I'm unable to boot from the DVD drive. The HDD and the DVD drive are both IDE. I am using a single IDE cable to connect them. The DVD drive powers up properly and I can eject the tray normally. I suspect a jumper issue here.

The DVD drive has three sets of pins labelled as – MA, SL, CS. The jumper is on the MA pin. My system configuration is as follows:

- Motherboard – Gigabyte GA-EP45-UD3L
- PSU – Cooler Master Extreme Power 460W
- GPU – ZOTAC GeForce GTX260
- CPU – Intel Core 2 Duo E7400
- RAM – Kingston 1 GB 800 MHz

Also, please let me know if the 460 W PSU should be enough for my GPU. I also plan to get a 320GB / 500 GB WD HDD next month. Do you foresee any power issues?

Denis S. D'Souza

Make sure that the hard drive is set as the master drive and the DVD drive as the Slave. Here, MA stands for Master, SL for Slave and CS for Cable Select. There cannot be two master drives or slave drives on a single IDE interface.

A good 460 W PSU should be just about sufficient for your configuration. An additional hard drive shouldn't be a problem.

Windows error

My desktop PC configuration is as follows:

- Processor – Intel Core 2 Duo E7400
- Motherboard – GIGABYTE S series
- RAM – Umax 1 GB
- HDD – Samsung 160 GB
- Monitor – AOC 18.5-inch LCD

I installed Windows XP (SP3) on my system, but after booting it started hanging, showing errors and I was not able to acces any application on my system. I reinstalled the OS but it failed. I would also like to know whether I can install Windows7 on my system.

Ravi Shankar Chakravorty

The problem might be with the hard drive or memory. You'll have to run a thorough disk scan and use Memtest86+ to ensure that there are no problems with it. Yes, you can install Windows 7 on your system.

MSCONFIG missing

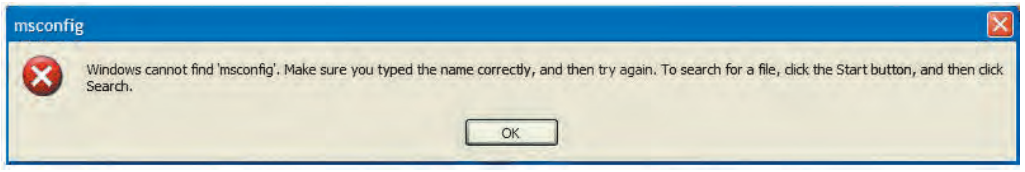
My age old machine (Pentium 4 – 1.7 GHz, Intel 845 motherboard, 512 SD RAM with Windows XP SP3) recently refusing to open MSCONFIG. I run Comodo Firewall and Avast 4.8 Home. I have also performed full scan with Ad Aware 2009, Spybot, Bit Defender, Advanced System Care, Doctor Alex, EMCO malware destroyer and several others with out any help. All scan reports indicate there is no infection. All the above mentioned software have been updated.

Sudipta Sarkar

The application msconfig might be corrupted or missing. There could be another reason – the PATH variable might have been changed. Try clicking on `Start > Run`. Type `C:\WINDOWS\SYSTEM32\MSCONFIG.EXE`. Check if it runs. If yes, then the variables need to be reset.

Press `[Windows] + [Pause]`. Go to the Advanced system properties and look for system variables. Add an entry for `C:\WINDOWS\SYSTEM32\` for PATH variable.

If MSCONFIG.EXE isn't present, repair it using the Windows installation disc.



Missing or corrupted MSCONFIG can throw up such errors

Thrash those messy wires

Wires are almost ancient technology, and choosing wireless peripherals is a great way to have an organised desk, and interface with your machine in a more comfortable, flexible manner

Agent 001
agent001@thinkdigit.com

When shopping for a wireless keyboard and mouse remember that while combos are available and convenient, people might have specific requirements – for example, a gamer might want a high-DPI laser mouse and a regular keyboard. Or an HTPC user might want a high-end keyboard with a lot of multimedia functions along with a simple, no frills mouse. The ultimate combo would be the combination of the best mouse and keyboard, but such setups can exceed 10,000 bucks. For example, I came across this beautiful Logitech Cordless Desktop MX5500. Priced at Rs. 10,800, it consists of the Logitech MX keyboard and the MX Revolution mouse. This is the ultimate combo as the keyboard is really well laid out. It even has a small LCD and has a lot of shortcut keys. The dealer who had this initially tried to divert me to some of the cheaper offerings in his shop evidently hoping to make a sale. Upon seeing my interest he relented. "Most of the dealers in Lamington Road will not even stock such an expensive combo" he said. I had to agree and the products do look fabulously well built, but 10 grand for something I'd use for typing and an HTPC remote – you've got to be kidding me!

The Logitech Wireless Desktop MK250 is one of the cheapest Logitech combos available, at Rs. 1,400 and is a good choice for someone looking at a quality product. For someone looking at a quality notebook mouse I recommend the Logitech VX 450 Nano, that features a really tiny receiver that you can leave plugged in to your notebook or netbook without fear of anything getting damaged while travelling.

Generally wireless devices are associated with lag, which makes them forbidden for gamers. While current generation wireless mice are pretty accurate and fast, the best wireless mouse will never be as accurate as a good wired USB mouse. Therefore gamers will want wired stuff. People often ask me if there is any difference between buying wireless peripherals from small, less known brands as opposed to Logitech and Microsoft. The answer goes thus – larger companies simply spend more on research and this leads to better, more ergonomic, more durable and comfortable products. It also makes a difference in performance, battery life and range for wireless peripherals. Bluetooth is emerging as a technology for wireless connectivity and the major advantage is one saves a USB port. This makes a huge difference on a notebook, where USB ports are a premium. Bluetooth also allows pairing with multiple devices, so one mouse can be used on multiple systems, as long as the PC in question supports Bluetooth, which can be added by adding a simple 350 buck dongle. Sadly Bluetooth offerings are not as wide in terms of choice as the dongle-based wireless devices.

Logitech has a neat technology they call "Unified Receiver" which basically covers an umbrella of devices that can be used with one wireless receiver, meaning if you buy a mouse and keyboard separately from Logitech and both support the unified receiver, they can be used together, with a single receiver, thereby freeing up a USB port. I also came across one Microsoft product, the Wireless Optical Desktop 700, priced at Rs. 2,000. The next shop had a Logitech Wireless Keyboard K350, priced at Rs. 2,600 – I really liked the design and the multimedia keys. The keypad also seemed to be well laid out and I liked the feedback on the keys, this is very important for someone who is going to be doing a lot of typing – like me. He assured me that a set of two AA batteries would last me for more than a year and this one supported the unified receiver as well. Then I asked him to show me a mouse to go with this. He asked me if I would be interested in the MX Revolution. It's surely a great mouse, but for 5000 bucks, I could get a new hard drive, so I told him I wasn't interested. Then he showed me the M305 priced at Rs. 1,100. A plain mouse, with a good 1000 dpi sensor, the M305 has a tilt scroll wheel — very important for people like me who use a lot of MS Excel. I tried hassling a good deal, but to no avail. I asked for something cheaper and was shown the MS Optical Desktop 1000 for 1,950 bucks - a good option except that I didn't like either the keyboard or mouse as much. Finally, sensing my reluctance, he offered to give me a discount if I purchased both the Logitech keyboard and mouse – I had not told him I was interested in a combo, but had mentioned interest in wireless keyboards and then gone on to browse mice. Feigning reluctance I hesitated, while my mind wildly calculated. I told him that I would be interested in both if he could give them to me for 3,000 bucks. We haggled and I finally got him down to 3,300 - a good 400 rupees less than the cost. Finally I found a solution.

Q I plan to buy a laptop soon which will be used for website designing, database management and Java programming. I am confused between two brands — Dell and Lenovo. My budget is around Rs. 35,000 and I'd like to get at least a Core 2 duo and at least 2GB RAM. Also, it would be good if it comes with genuine Windows 7. I give equal importance to after purchase service of the product and I'm not aware of any Dell service center here, in Kolkata. Please help me on this.

Rupanjan Chatterjee

A I think from among the two brands you have mentioned you will find only Pentium Dual Cores for that price range. For a little more, and as little as Rs. 37,000 or so, you can pick up a notebook from Lenovo with 3 GB of RAM and a decent Core 2 Duo in the range of the T6600 (2.2 GHz).

Q I want to buy a 19-22 inch LCD monitor; that doubles as a TV. Budget is around Rs. 13,000

Manish Saini

A Look at the LG M197WA, we have tested the 22-inch version (Rs. 12,990) and it was pretty decent.

Q I was planning to buy a cellphone, probably a touch screen, with a decent camera with flash and at least 1 GB of inbuilt or bundled memory space (expandable memory). It should also have a music player, FM receiver, Bluetooth receiver, Wi-Fi support, Internet support and should be able to record videos at a minimum resolution of 480p. Plus the internal phone memory space should also be sufficient. The battery life should also be sufficient to last at-least a day. My first choice is Nokia phones. A similiar phone from any company would be equally acceptable. My budget is Rs. 10,000 and I cannot spend any more.

Saurabh Mittal

A 480p video recording is a little tough to find on your budget, but if you want a decent phone that has touch capabilities I suggest the LG KS660, although it will be priced above the Rs. 10,000 mark. Nokia's 5230 is priced at Rs. 10,000 and has a touch screen, it also has a good battery and display, but a very ordinary camera. Other than that you have the option of non-touch phones. In such a case look at Sony Ericsson's W595, also priced at the 10K mark.

Q I'm all set to purchase a new LCD 32-inch. I have picked Sony as a brand because I've heard their TVs are better, but I'm really confused between two models. The models in question are the Sony Bravia KLV-32W550A and KLV-32V550A/B. Which is better and is there anything else I can consider?

Ravi D

A Amongst the two HDTVs former has a 100 Hz display, but this does not justify the price difference of Rs. 16,000 or so. You are better off with the KLV-32V550A/B. May I also recommend 32PFL5609/98, available for around Rs. 40,000. This is a full HD display (1080p) and is pretty good value for the performance it offers.

Q My current PC configuration is:-
Motherboard: Gigabyte 945GCM-S2L
RAM: 2 GB
Processor: Intel Core 2 Duo E7500 2.93Ghz
Graphics card: Nvidia GeForce 7300/7200 GS 512Mb
This configuration is enough according to the recommended configuration needed for games like Batman Arkham Asylum, Crysis and applications like Maya etc. But still these games and applications are not running to their full capacity on my PC. Is it because my graphics card is old? If yes, are there any better (and less expensive) options available for my current motherboard? Or would I have to give my system a complete overhaul?

Shobhit Khinvasara

A The answer is an emphatic yes. You haven't mentioned a budget so I'm going to assume you will be willing to spend at least Rs. 4,000. For that price you can pick up a GeForce 9600GT from brands like ZOTAC and Palit. If you can spend Rs. 6,500 or so, you can pick up a PowerColor or Sapphire Radeon HD 4850.

Q I want to buy a cell phone with a big screen with a high resolution and excellent video quality. Secondly, I want very good sound quality comparable to iPods and Sandisk Sansas. My price range is from Rs 10,000 to 15,000. The main thing is that it should be a perfect media companion. The camera quality should be decent as an over performing camera is not required. I was thinking of buying only Sony Ericsson phones as my first phone was Sony Ericsson and I would like to stick to the company. Please give a recommendation even if the price of the phone exceeds my range. I was thinking of the SE Aino.

Adi Mukherjee

A If you are looking to grossly overshoot your budget the Aino is for you, but be prepared to shell out around Rs. 26,000. Else spend Rs. 15,000 and get the Nokia 5800 Xpress Music.

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Q I am planning to buy a good sound card for around Rs.3,000. It should be good for Music and OK for games. I am considering Creative X-fi Xtreme Audio. Is this OK? Also please clarify some doubts. Is Asus Xonar DX better than Creative X-Fi Xtreme Audio? I have a budget 5.1 speakers Creative SBS A500, Can I experience the power of the sound card with this speaker? What is the price of these cards?

C.Karthik

A I recommend the ASUS Xonar DX, a good sound card for Rs. 3,600 or so. ASUS is considered to use quality materials on their soundcards.

digit

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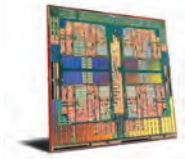
- Ultra high-end PC / Gaming rig = Rs. 1,10,500

PRIMARY COMPONENTS



PROCESSOR

- AMD AthlonII X2 240 / Rs. 3,000
- AMD Athlon 2 X4 620 / Rs. 5,050
- Phenom X4 945 / Rs. 8,100
- Intel Core i7 920 / Rs. 14,400

MOTHERBOARD

- ASUS NVIDIA 7025 M2N68-AM Rs. 2,250
- Gigabyte MA78GM-US2H Rs. 4,200
- ASUS M4A78-PRO / Rs. 5,850
- MSI X58 Pro-E / Rs. 11,400

RAM

- 2 x 1 GB DDR2 800 MHz (Kingston) / Rs. 2,000
- 2 x 1 GB DDR2 800 MHz (Kingston) / Rs. 2,000
- 2 x 2GB DDR2 800 MHz (Corsair) / Rs. 4,000
- 2 x 3 GB Corsair Dominator 1600 MHz DDR3 / Rs 8,000

GRAPHICS CARD

- None
- ZOTAC GeForce 9600GT / Rs. 4,750
- Sapphire Radeon HD 4850 / Rs. 6,900
- Sapphire Radeon HD 5870 / Rs. 25,500

HARD DRIVE

- Seagate 500 GB 7200.11 / Rs. 3,100
- Seagate 500 GB 7200.11 / Rs. 3,100
- Seagate 1 TB 7200.12 / Rs. 4,400
- WD Black Edition 1 TB / Rs. 6,500

MONITOR

- ViewSonic VA1928wm / Rs. 7,900
- AOC 2236Vw / Rs. 8,400
- AOC 2236Vw / Rs. 8,400
- AOC 2436Vw / Rs. 14,500

SECONDARY COMPONENTS

CABINET

- Zebronics Antibiotic / Rs. 2,100
- Zebronics Antibiotic / Rs. 2,100
- CoolerMaster 690 / Rs. 4,400
- Antec 900 / Rs. 6,500

SOUND CARD

- None
- None
- None
- ASUS Xonar DX / Rs. 3,700

POWER SUPPLY

- VIP 350 Watts / Rs. 850
- VIP 400W Gold / Rs. 850
- Corsair VX 450 / Rs. 3,800
- Corsair HX 620 / Rs. 7,100

SPEAKER

- None
- Altec Lansing VS2421 / Rs. 2,200
- Altec Lansing VS2421 / Rs. 2,200
- Altec Lansing MX 5021 / Rs. 6,500

MOUSE

- Logitech 3 button scroll / Rs. 300
- Logitech 3 button scroll / Rs. 300
- Logitech MX518 / Rs. 1,300
- Logitech MX518 / Rs. 1,300

OPTICAL DRIVE

- LG H55N / Rs. 1,100
- LG H55N / Rs. 1,100
- LG H55N / Rs. 1,100
- ASUS BC-1205PT / Rs. 11,010

KEYBOARD

- Logitech Multimedia / Rs. 400
- Logitech Multimedia / Rs. 400
- Logitech G15 / Rs. 4,400
- Logitech G15 / Rs. 4,400

MISCELLANEOUS

TABLET

- None
- iBall Design Tablet PF1209 / Rs. 8,900
- Wacom Intuos4 Medium (PTK-640) Rs. 21,280

MOUSEPAD

- None
- Razer Goliathus Speed (Oversized) / Rs. 1,400
- Steel Series Qck Heavy / Rs. 2,000

HEADPHONES

- None
- Sennheiser HD 201 / Rs. 1,500
- Sennheiser HD 280 Pro / Rs. 5,500

GAMING CONTROLLERS

- Xbox 360 controller / Rs. 1,350
- Logitech Momo / Rs. 5,500
- Logitech G25 / Rs. 17,500

PRINTING SOLUTIONS

- Canon PIXMA iP1980 / Rs. 2,695
- Canon iP3680 / Rs. 5,595
- Epson B-500DN / Rs. 22,999

POWER PROTECTION

- None
- APC 550W / Rs. 2,400
- Numeric 1 KVA / Rs. 4,200

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Digital Cameras

Model	Market Price	Tested in	Sensor	Optical Zoom	LCD Screen Size
Canon Powershot SX120	Rs. 14,995	October 2009	10 MP	10x	3.0 inches
Canon IXUS 100IS	Rs. 12,999	October 2009	12 MP	3x	2.5 inches
Canon Powershot A480	Rs. 7,499	October 2009	10 MP	3.3x	2.5 inches
Canon A1100IS	Rs. 9,499	October 2009	12 MP	4x	2.5 inches
Canon IXUS 95IS	Rs. 10,500	October 2009	10 MP	3x	2.5 inches
Canon SX200IS (BEST PERFORMER)	Rs. 21,500	October 2009	12 MP	12x	3.0 inches
FujiFilm FinePix F200	Rs. 17,999	October 2009	12 MP	5x	3.0 inches
FujiFilm FinePix S1500	Rs. 12,500	October 2009	10 MP	12x	2.7 inches
Kodak C140	Rs. 4,999		8 MP	3x	2.4 inches
Nikon P90	Rs. 23,995	October 2009	12 MP	24x	3.0 inches
Nikon Coolpix L20	Rs. 7,750	October 2009	10 MP	3.6x	3.0 inches
Nikon S220	Rs. 8,500	October 2009	10 MP	3x	2.5 inches
Olympus FE25	Rs. 5,995		10 MP	3x	2.4 inches
Panasonic FS4	Rs. 6,750		8 MP	4x	2.5 inches
Samsung ES55 (BEST BUY)	Rs. 6,990	October 2009	10 MP	3x	2.5 inches
Sony HX1	Rs. 29,800	October 2009	9 MP	20x	3.0 inches
Sony S930	Rs. 7,800		10 MP	3x	2.4 inches
Sony H20	Rs. 17,500		10 MP	10x	3.0 inches

External HDDs

Model	Market Price	Capacity	Interface	Warranty (Years)
Seagate Freeagent GO	Rs. 5,150	500 GB	USB	5 years
Seagate Freeagent GO	Rs. 3,250	250 GB	USB	5 years
Maxtor One Touch 4 Mini	Rs. 3,200	250 GB	USB	5 years
Transcend StoreJet	Rs. 2,725	160 GB	USB	2 years
Western Digital MyPassport	Rs. 2,850	160 GB	USB	3 years
Western Digital MyPassport Essential	Rs. 4,100	640 GB	USB	3 years
Western Digital MyPassport Studio Edition	Rs. 7,800	1 TB	USB, FireWire, eSATA	3 years

Input Devices

Model	Market Price	Tested In	Features / Technology	Interface
Microsoft Wireless Optical Desktop 1000	Rs. 1,950	NA	Wireless (optical mouse)	RF
Microsoft Wireless Optical Desktop 700 V2	Rs. 1,400	NA	Wireless (optical mouse)	RF
Logitech Internet Pro Desktop	Rs. 750	NA	Optical Mouse	USB 2.0
Logitech Cordless Desktop MX5500	Rs. 10,800	NA	Bluetooth, laser mouse with extra buttons, LCD display on keyboard	RF (Bluetooth)
Logitech Cordless Desktop Wave	Rs. 4,650	NA	Ergonomic keyboard, with soft palm rest, laser mouse	RF
Logitech Wireless Desktop MK250	Rs. 1,200	NA	Wireless (optical mouse)	RF
Zebronics Mmkeyboard + Mouse	Rs. 450	NA	Optical mouse	USB
Microsoft Wired Desktop 600	Rs. 850	NA	Optical mouse	USB
Belkin n52te	Rs. 3,500	February 2010	Gamepad, macro keys	USB
Logitech G13 Advanced Gameboard	Rs. 4,000	NA	Gamepad, macro keys, LCD display	USB
Logitech G15 gaming keyboard	Rs. 4,400	NA	Macro keys, backlit display	USB
Microsoft Sindewinder X6 keyboard	Rs. 3,600	NA	Backlit keys, macro keys	USB
Microsoft Sidewinder X5	Rs. 2,400	NA	2000 dpi, laser sensor mouse	USB
Logitech MX 518	Rs. 1,300	NA	1800 dpi, IR sensor mouse	USB
Logitech G5	Rs. 2,200	NA	2000 dpi, laser sensor mouse	USB

Devices to ease you

With the recession and cut-throat competition, the office room has suddenly become one large dangerous playground. So this time, we have decided that it is time to equip you with the essentials for this competition on a wartime footing. It's war time, soldier, and the first fact of war, as always is...

Mohamed Rameez
readersletters@thinkdigit.com

Defence

Think someone is trying to spy on you? Maybe it was the disturbed furniture in your cubicle or the change in position of the mouse. Maybe it is the constant feeling that someone is watching you. Whatever it is, here are some cool tools for you:

Audio jammer ($100 to 150)

An audio jammer works by generating a random masking noise that overloads and jams nearby microphones. Assured to work against any microphone other than one held extremely close to your mouth (a bug in your phone, perhaps), this is the ultimate tool for anyone who is afraid that someone is listening in on his private / confidential conversations at office. With a range of up to 10 metres, this device is ideally carried on the person, but one may choose to place one in every room for organisation wide security.

The KJB Security J1000 Audio Jammer

Audio jammers are available in many brands. The KJB Security J1000 Audio Jammer From KJB Security, available on Amazon.com, is a good bet.

Keylogger ($50 to 150)

While software keyloggers work just fine, there is the minor issue of making them undetectable by anti-spyware / anti-malware software, which is quite hard. The solution is a hardware keylogger. Connected in-line between a keyboard and the computer (the PS/2 or USB cable from the keyboard is plugged into the keylogger, which is then plugged into the computer), this dandy little device can be camouflaged to look totally natural. It is the ideal tool for the office executive afraid of his terminal being accessed in his absence, though it will do for those of you with more evil intentions too.

The Spy Keylogger available on thinkgeek.com

For a good purchase, check out the Spy Keylogger, available from thinkgeek.com. Some more expensive models, in the $100 to 200 range also have the option of live wireless monitoring of keystrokes. However, these models are hard to find in India due to regulations.

Wi-Fi Spectrum Analyser ($200 to 400)

Think someone is snooping in on your office Wi-Fi network and sniffing out packets? What you need, is a Wi-Fi spectrum analyser. After all, the highest encryption network security packages can still be compromised, and the only true defence is ensuring that no unknown device transmits or receives into your Wi-Fi network. A Wi-Fi spectrum analyser is a device that detects all transmitters nearby in the 2.4 GHz spectrum. It usually comes with bundled software that allows you to isolate each source (transmitter) nearby and locate them by monitoring signal strengths as you move closer and farther. This is the ideal tool for the professional willing to invest that extra bit into his/her Wi-Fi network security and is willing to spend loads of time on it.

A good choice in this arena is the Wi-Spy 2.4x Spectrum Analyzer. Available on Amazon.com and thinkgeek.com, this tool also works for Bluetooth interference and comes packed with loads of small convenient features such as record and playback of signal patterns.

The Wi-Spy 2.4x Wireless spectrum analyzer. Comes with some useful features such as frequency and amplitude markers

A disappearing ink pen ($10 to 20)

This one is straight from the spy movies. You might already be familiar with the invisible ink pens available on the internet. The disappearing ink pen is nothing of the sort. It works perfectly fine for one day notes, and the ink soon vanishes, without a trace. Even indentations on your notepad will be hard to read as

these pens require really low pressure to read.

This manufacturer claims the technology behind the pen was developed by the actual KGB during the cold war.

The KGB disappearing ink pen, available on thinkgeek.com

A wireless camera / Microphone detector ($20 to 200)

This is a device for the truly paranoid, or the truly phantasmagorical. A wireless camera / microphone detector works

A typical Hidden Camera Detector

by scanning for all transmitters within a huge frequency spectrum (20Mhz to 10Ghz), so that any nearby wireless microphones / cameras transmitting in these frequencies can be detected. Most of these devices come with variable channel scanners for further narrowing down the spectrum of scanning.

A wide variety of branded and unbranded products in this category can be found on the internet.

A directional Accoustic Amplifier ($30 to 50)

Your grasp of office powermongering will take a quantum leap with this device. Allowing for the amplification of sound from up to 50 metres away by up to 50decibels, these are the ultimate tools for the professionals afraid that their colleagues are planning something against them. These devices also often double as regular audio enhancers, allowing you to listen in on birds/wildlife once clipped to a binocular, or hear that lecture better.

Once again, your options aren't limited and range from the cheap and unbranded to the expensive and customised.

The Sonic superear is a good device in this category

Offence

The set of gadgets in this session will give you the full power to take the battle to the other side at office.

Personal Hidden cameras ($20 to 400)

Maybe it is high time you started gathering evidence of all your dealings. And the ultimate solution, is a hidden camera on your own person. This concept, beginning with the early spy movies, is even today one of the most popular forms of surveillance. May it be belt buckles or car keys, sunglasses or wristwatches, hidden cameras can be built into almost any innocent looking item you carry on you. Almost all shopping web sites offer you a plethora of choices in this regard.

Spybot ($150 onwards)

For those of you who think hidden cameras are for pussy cats, put a camera on a robot, send it into enemy territory and gulp in the information. Ideal for listening in on your co-worker's cubicle, bots such as these are available with various features. While some use dedicated wireless channels, some operate through Wi-Fi / Bluetooth frequencies.

A prime example is the Rovio – Wi-Fi roaming bot. Small and unobtrusive, it can be used for both defence and offence. Leave it roaming around in your office / cubicle for continuous observation, or have it slowly sneak into enemy territory. Interfacing through any available nearby Wi-Fi network, the Rovio can be operated completely independently from anywhere around the world, over the web.

An unobtrusive micro scanner ($100 onwards)

The ideal tool for quickly copying those incriminating documents, these scanners come in many forms, most often that of a pen / wristwatch. Many of them

The Docupen personal pen scanner

come with tons of built in memory and surprisingly high resolutions, to make sneaky document scanning a pleasant experience.

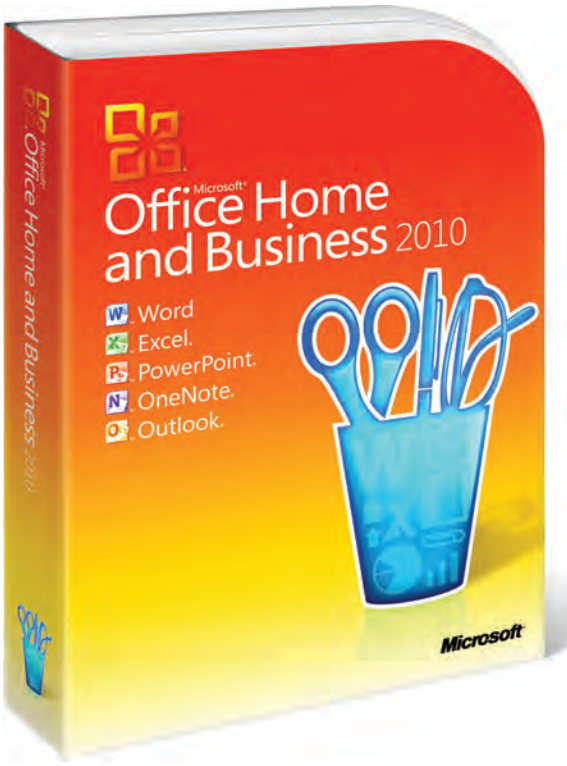
An excellent choice is the RC 805 Docupen personal pen scanner. Coming with a full 400 DPI resolution, this device lets you scan a legal size document in as little as 4 seconds. d

The Rovio – Wi Fi roaming bot

One of the many hidden camera devices available on the internet

Save as DOCX
Saving in the .docx format is a good idea, as it offers better compression for the cloud and email over the traditional .doc format

2 Million
That's the number of times the beta version of Office 2010 got downloaded



Office 2010 has some great changes at first glance, but is it really worth the upgrade?

Office 2010 worth it?

Rahil Banthia
readersletters@thinkdigit.com

Sometime in 2010, Microsoft will release the next version of its flagship Office suite. It has taken Microsoft a long time to integrate its office suite with the web, and now that it is finally arriving, everyone's asking whether it will provide enough change to entice an upgrade, or will it just remain a routine update for those still stuck on Office 2003?

After a few days of testing the beta version of Office 2010, we're impressed by the solid effort Microsoft has put in to polish and expand upon the groundwork it laid with Office 2007, while continuing to add new features. The ribbon-interface has been refined and enhanced. Outlook now comes with a powerful feature that combines your email with social networking sites such as Facebook and LinkedIn.

Microsoft has clearly focused a lot on network collaboration with improved SharePoint support, and integration with Windows Live. This along with Office web apps means users can now access their files anywhere provided there's an internet connection, save files directly to their SharePoint server or Windows live and collaborate and edit documents simultaneously with other users. Let us delve a little deeper into what new Office 2010 promises to offer and what it has succeeded in doing so.

Overall improvement

Office will now also be available in a 64-bit version, although average users won't notice a significant difference.

Office 2010 bridges the gap between the Windows Vista and Windows 7 eras by streamlining the Ribbon user interface and extending it to encompass all the Office applications. The overall experience has also been tweaked by bringing its layout and structure in line with the Ribbon objects from the Windows 7 SDK. Users can now customise the ribbon without having to delve into XML to add their own tabs and commands.

The layout of the underlying button menu has been changed considerably. It is now a customised, window-spanning alternative view that combines information about the currently selected object with various actions and configuration options. And the view is also context sensitive, as in it adapts itself to match your current work status.

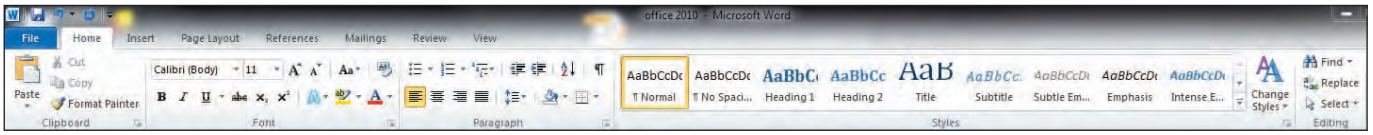
Backstage View is a new feature that provides information of your common tasks such as saving, printing and sharing documents. One of the most useful aspects of this view is the revised print preview, which combines all the previous printing and layout options and puts them next to a sleek print preview of your file for convenient access. Third-party add-ins can add features to the Backstage view, so you can expect the next generation of PDF viewers, OCR software, and other applications to install their own automation and integration features inside Office applications.

One minor change that could prove to be the biggest productivity enhancers in Office 2010 is an improved copy-and-paste feature. When you paste anything, you can now paste-preview how it will look depending on your paste choice. This is like an improvement we didn't know we wanted, but realised it's cool to have it.

New photo-editing options are available in some Office applications, like sharpening or softening, changing the contrast and colour saturation, cropping, remove background option, and a variety of Photoshop-wannabe "artistic effects." There is an Insert Screenshot icon on the ribbon which is kind of like `[Windows] + [S]` in OneNote 2007. It lets you blissfully illustrate your documents with anything on your display.

Microsoft Word 2010

There's not much you can add to Word, but the new interface is simple, and packed with some new small features



Word now has an improved and smoother ribbon with added features

that makes common tasks smoother and existing tools more powerful. There is even a protected view that warns you about documents you've downloaded and offers to open them in read-only mode.

Backstage menu has been implemented well in the new word. For those of you, who use some files frequently, you can promote them to the Backstage menu itself. The new Add-Ins menu keeps your third-party programs and add-ons well organized and managed.

The new navigation pane for searching is a boon. You can even search charts, tables, footnotes and other content now. The search interface opens as a left-hand pane, with a good set of option. It also displays a navigable map of thumbnails of your document like Adobe Reader.

The new version of Word also makes it more convenient to insert pictures. You can make significant edits, such as adjusting the brightness and contrast, changing the image to grey scale, adding drop shadows, and more even after the image has been inserted into your document.

Those who like to stylise their documents will be pleased by a few new additions .Word still has the text Effects button on the Home tab like Office 2007 that gives you presets plus custom effects. But, now you can add special effects such as glow, bevel, reflect and shadow to text. More sophisticated typography, such as using ligatures and small caps is also supported.

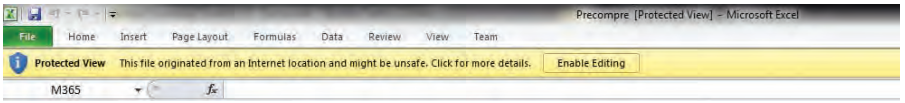
Microsoft Excel 2010

Excel hasn't been worked upon as much as the other applications in Office 2010, but nevertheless it gets the same general improvements in the interface; the look is simpler and cleaner, you can add Recent files to the backstage menu like in Word and the print preview has been thoroughly improved and now lets you see the margins and zoom in-zoom out feature has been added to see the whole page or zoom in to read individual cells.

The conditional formatting feature has also been overhauled, and new styles and icons have been added.

One new feature in Excel is PowerPivot which lets you quickly scroll through millions of rows of data in seconds for large data sheets. Complicated charts render far faster than Excel 2007 (which introduced a powerful but slow new charting engine) although still not as fast as they used to do in 2003 (lesser functionality then, of course). Spread sheets now load and save more quickly (especially if you're using the binary XLS format). Statistical functions in Excel have previously been notoriously inaccurate. But Excel 2010 has newly accurate statistical functions signed off for accuracy by professional number-crunchers.

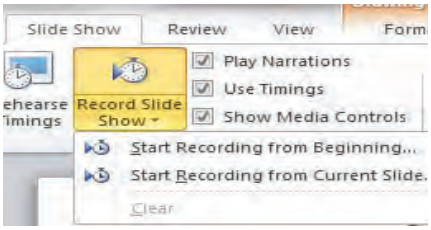
If you use pivot tables, a new feature called "slices" makes it easier to explore the information; unlike having to turn columns and categories on and



You can now access Excel spreadsheets from a browser without having Office installed on your system

Banned in the US
Sale of Office with the DOCX extension was banned in the US last year, over a patent issue. Microsoft has now released a patch to fix it

Go free
If you're looking for a budget alternative to Excel, try Calc by OpenOffice, the most downloaded free office productivity suite



Recording a slideshow as a video

off in the task pane like in previous versions. With "Sparklines" that can be embedded in any worksheet, you can add instant visualisations to your data that give you a picture of what the numbers mean without creating a chart for every cell. You might take some time learning to exploit them, but these give you the kind of visualisations we're getting used to seeing in Web 2.0 apps inside your spread sheet.

Microsoft PowerPoint 2010

The most useful addition to PowerPoint is the ability to broadcast a presentation online. Others can view it on their web browsers without having PowerPoint installed. There's a set of basic video editing tools built directly into PowerPoint 2010. You can now embed videos directly from online video-sharing sites such as YouTube. Although you can apply video styles to an online vide, reflections, crops and rotations don't work.

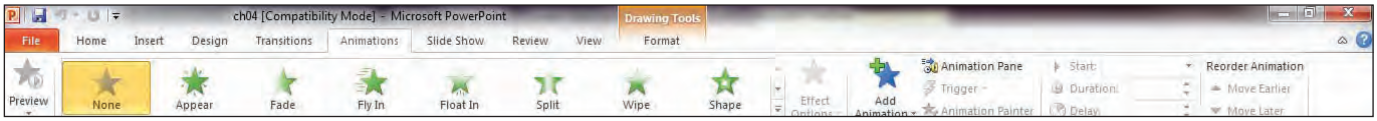
You can now merge two presentations. PowerPoint 2010 is also a lot better at recovering unsaved files now, and you can recover previous versions of your current document and record your presentations as videos, a feature which was missing in both Office 2003 and Office 2007 and was continuously in demand.

OneNote 2010

OneNote is powered up and now boasts of a powerful "linked" notes feature that lets you work in any Word or PowerPoint document, or while viewing pages in a browser, and create notes that are automatically linked to the document in the other application. It also finally gets the Ribbon interface, plus the advanced typographic features available in Word. Navigation through notebooks has also been improved. The search feature in OneNote has been augmented as well, as previously it was not particularly useful. You can now specify some advanced options as to whether to search on a page or in a section, group, individual notebook or all notebooks.

Earlier all the clipped information from web browsers, snapshots of the screen and the results of "Send to OneNote" used to go under the Unfiled Notes section, but now you can now pick which section to put that information in. You can even put multiple clips on the same page.

OneNote 2010 also makes it extremely easy to share notebooks and collaborate with other people in them. They can work in the same page; even at the same time if necessary. Whatever they add is highlighted and marked with their initials to remove confusion. There are a host of other small improvements like editing equations, and translation tools which work across multiple languages. OneNote 2010 also has excellent ink support.



Quick Access toolbar

Office Web Apps

The final major feature in the Office 2010 is the addition of Office Web Apps. Office Word App lets you create, edit, and save Word documents. Office PowerPoint App lets you create and edit presentations from the web. You can even pick themes and slide layouts. You can also insert animations, pictures, charts, and tables into existing PowerPoint presentations. Office Excel web application allows you to create, edit and, save workbooks. You can even use the same formulas online like in the client version of the program. All these applications have inbuilt Auto-correct and background spell checking. Office Web App also encompasses Multi-user co-authoring. With all this, something very important is missing. There is no automatic synchronisation of files between the Web-based version of Office and the client version. This can potentially be very confusing; you can end up with different versions of the some document in different locations on your PC and the web and simply not know which the latest version is.

You wouldn't want to use Office Web Apps instead of a full desktop version given the choice but they'll be great when you're away from your home computer. And it is Microsoft's first direct take at Google Docs.

Final Thoughts

The big question with any new version of Microsoft Office is not "how good is it?". It is rather "Is it so much better that you should upgrade?". It appears that Microsoft has made extensive usability improvements across the entire Office suite. This version of Office adds some very useful new features, such as Paste-Preview, a standardised Office-wide reliance on the Ribbon, Backstage View, Office Web Apps, video-editing tools in PowerPoint and much improved email handling in Outlook. Even performance wise, it seems a big improvement on Office 2003, and slightly so on Office 2007 and doesn't have significant problems. Generally, the interface feels more polished and everything more accessible. This version of Office might not wow you, but the improvements are solid. While most of the normal people can likely do without any of these latest additions, somewhere there's one of you who has been dying for each one of them. If you are still stuck on Office 2003, we would suggest you definitely want to board the train and go the Office 2010 way. For those of you using Office 2007, we would suggest to stick to it unless there's some new feature that you desperately want.

Facebook on PS3
The release of firmware 3.10 just broadened the social networking horizon on the PS3, adding Facebook support

Cluttered Facebook?
Soon, Facebook shall introuduce 'Dashboard' for third-party applications enabling a cleaner look

Your own Facebook app

Facebook is the latest rage in the social networking arena. With innumerable apps out there, it's easy to get lost in Facebook. Find out how you can tap the exciting side of Facebook by creating your own app

Rahil Banthia
readersletters@thinkdigit.com

Setting up

Before you actually start writing your application, you need to register your application with Facebook and get some application-specific information that will be essential for your application to communicate with the Facebook platform. By this, we mean the API key and the secret key that needs to be specified in your code.

Log into your Facebook account and go to www.facebook.com/developers. Add the application to your Facebook profile. On the top right corner, you will see the "Set up New Application" button. Click on it. Give your application a name that helps others identify it. Agree to Facebook Terms and Conditions and click on save changes.

Now that the basic stuff is in place, you'll need a logo to associate with this application. This just makes it easy for people to recognise your application. Let us also add a description because then it becomes easy for people to find your application through the Facebook application directory. You can also add an email address that people can use for technical support.

Head over straight to the canvas tab. There you will see render methods. You have to choose between iFrame and FBML. For this example to be simple, we will use FBML. Choose it and click on save changes. You also need to populate the base and callback URL for your application. Base URL is the just the fancy URL name that other people will be using to access your application page. Facebook will provide immediate feedback if that URL is unavailable, in which case you should pick something else. The callback URL is the actual stuff that points the application to your server. Make sure you enter the URL of the folder in which your index.php and other pages are located and not the actual index.php URL.

Next head over the Advanced settings option. Select website for this example as we will be creating a traditional web app that integrates with Facebook and not a desktop app which accesses Facebook using the API and is run like a normal desktop application.

Now go the Authentication Options tab. Here you can select who all can add your application to their Facebook account. Specify a URL in the Post-Authorize callback URL text box. It is the URL that the Facebook sends a notification to, once a user authorises your application. Select the wide option in the Default Profile Box column for a rich experience. Also fill in the URL that you want users to get redirected to after installing your application in the Post-Authorize redirect URL on the Canvas page. Make it your canvas URL, basically the URL you typed in the base URL field earlier.

Finally, Click the Submit button. You will be taken to the My Applications page where you will get access to your API key and the secret key along with other meta information about your application.

The canvas page of settings

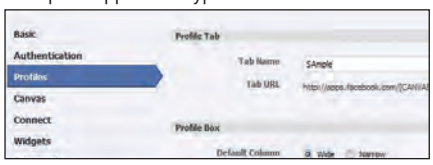
Creating your Facebook application

Now that you have your API and secret key, you are ready to create an application using the Facebook client library. We are more or less done on the Facebook site as of now. First thing you need to do now is to download the client library files of the programming language that you will be using (PHP, in our case) by going to the My Applications page or http://www.facebook.com/developers/apps.php. Facebook officially supports PHP and Java client libraries, and ASP.net by its collaborated project with Microsoft – http://www.codeplex.com/FacebookToolkit. The unofficial libraries of several other programming languages can also be found on the Facebook Developers Wiki http://wiki.developers.facebook.com.

Now you need to uncompress the downloaded file and copy the client file libraries in the folder that you specified as your canvas URL while setting up your application. The PHP client library that we will be using is under the main folder named Facebook-platform. Next you need to create a new file named appinclude.php. You can use Dreamviewer to do this or even simple text editing softwares such as Notepad. This file will contain the Facebook initialisation code required by your application to connect to the Facebook platform. You will have to include this file in all other PHP files in your application because this will contain your API key, secret key and callback URL. Type out the following code in this file:

```
<?php
require_once '../facebook-
```

Set-up the application type to web



The profiles tab

```
platform/client/facebook.php';
   $appapikey = '[api_key]';
   $appsecret = '[secret_key]';
   $appcallbackurl = '[web_app_
callbackurl]';
   $facebook = new
Facebook($appapikey, $appsecret);
   $user = $facebook->require_
login();
   try {
   if (!$facebook->api_client-
>users_isAppAdded()) {
   $facebook->redirect($facebook-
>get_add_url());
   }
   } catch (Exception $ex) {
   $facebook->set_user(null,
null);
   $facebook-
>redirect($appcallbackurl);
   }
   ?>
```

Replace the API key, secret key and the callback URL wherever required.

Next log on to your web server (your callback URL, remember?) and create a folder for your application. This is required because the facebook.php path in the require_once statement of the appinclude.php file we just wrote requires your app files to be located in a separate parallel folder with the Facebook client libraries. This step is flexible as you can change the path of facebook.php in appinclude.php if your folder structure differs.

You are now ready to write index.php of your application. The necessary code in that file has to be-

```
   <h1> Digit Test Application</
h1>
   <?php
   require_once 'appinclude.
php';
   ?>
```

These are basically the title of your application, the PHP start and end tags and a require_once statement to include appinclude.php file.

You can play around this page as you desire. Let us make our application display the user's name. For this, you need to type in the following php code in your index.php after the necessary code-

```
   echo "<p>Your user name
is: <fb:name uid=\"$user\"
useyou=\"false\"/></p>";
```

We are basically using the fb:name FBML tag to render the name of the current user. If you want to add a list of your Facebook friends, you can do this by the following code in your index.php-

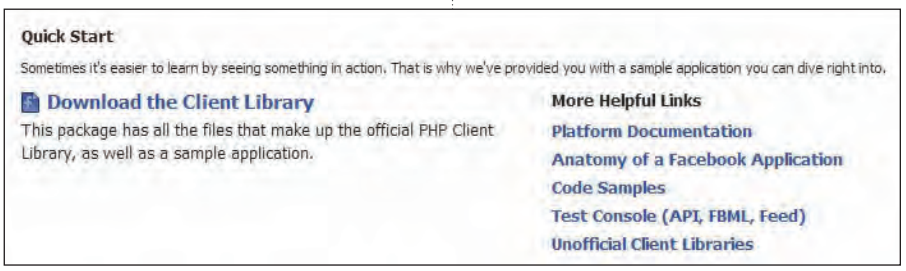
```
   echo "<p>Your friends: </p>";
   $friends = $facebook->api_
client->friends_get();
   echo "<ul>";
   foreach ($friends as $friend)
{
   echo "<li><fb:name
uid=\"$friend\"
useyou=\"false\"
/></li>";
   }
   echo "</ul>";
```

To try out this application, save the file, and copy it into your application folder on your web server. Next enter the canvas page URL of your application after making sure you are logged into Facebook in your web-browser. You will be redirected to your callback URL and the index.php will be rendered back inside the Facebook canvas. There's a lot more you can do with your application. For starters, we could do the following:

Add content to the Profile box of your application

You probably want your application to have some content when it appears as a box of the profile page. To set this up, all you need to do is add some code to the index.php file just after the `require_once 'appinclude.php'` statement.

```
   $default_text = "<p>Hey,
<fb:name uid=\"$user\"
useyou=\"false\" />! This Digit
test Application is part of a
sample guide to creating your
own Facebook applications.</p>";
   $facebook->api_client-
>profile_setFBML($default_text);
```



Download the client libraries from the same application summary page

Add an about page

You also should add an about page for your application so that Facebook users get to know what your application is all about. Its also an important marketing step while you are promoting your application.

Go back to www.facebook.com/developers, and click on See My Apps button in the My applications box. Next, click on Edit Application Profile. Here is where you can also modify your Application name and the description which you initially gave while setting up your application. Add up all that's relevant to your application and click on Save.

WHAT YOU NEED

Before we begin our journey, there are a few things you need to know. In order to create a Facebook application, you should probably know or need the following:

A place to host your application, i.e. a web server, or an access to some hosting space, or you can even use a free web-hosting web site.

Basic PHP knowledge, although we have tried hard to get through with as little coding experience as required and you should even be able to complete this without any coding knowledge whatsoever.

Imaging: Vijay Padaya

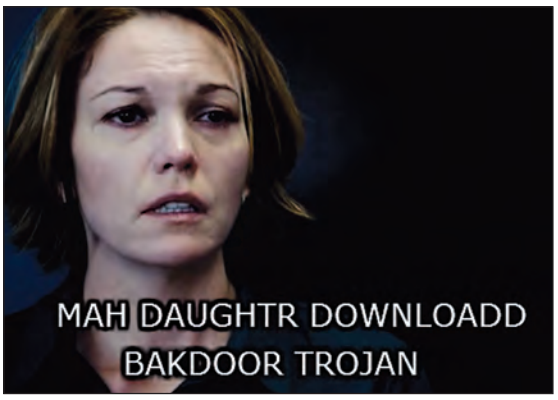
Hacking in Movies:
If all the hacking shown on the silver screen were realistic, then the internet would crash everyday, and we would live in an Airstrip One-like society.

Aditya Madanapalle
aditya.madanapalle@thinkdigit.com

Hackers in popular culture are very different from hackers in real life, and we do a bit of mythbusting by comparing the portrayal of hackers on screen to hacker activity in the real world. Technology seems to run very differently on screen than in real life. Movies have generally moved on from showing blips of information on a voyage through cyberscapes to showing almost real windows, and real terminals, but they still have a long way to go before reflecting the ground reality of technology. We look at some of the biggest mis-representations of technology on screen.

Untraceable

In Untraceable, the regular, run of the mill FBI agent sitting behind a console has almost god-like powers over the internet. Jennifer Marsh, the FBI protagonist, can shut down a site at a click of a button (called black-holing), get the username and password for any web site by just asking for it, and look at the Wi-Fi ranges of any router, in any home, using something that looks suspiciously like Google Earth. In the very laughable opening sequence, a hacker gets into a virtual machine trap (a honeypot) and steals passwords. As the passwords are stolen from a single text file, individual passwords are seen to get typed out on an on-screen keyboard! Mid-way into the movie, her own daughter downloads a "backdoor Trojan" in the form of a game, that was e-mailed to her by a friend. Apparently, FBI agents should go through our Internet Security Suite test. The movie has long boring sequences where a hacker on the internet shows someone dying on webcam, as long as the site with the webcam keeps getting hits. Every time the FBI black-holes the web site, the web site switches the hosting IP to another machine.



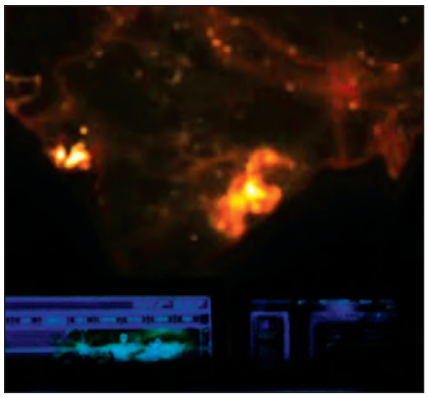
The FBI agent who has not heard of an internet security suite

Eagle Eye

Another movie that assumes that given enough money, technology can give you divine powers. The security agency that likes to pick names based on Norse mythology has a great operating system that breaks into cool waveform like transitions every time it wants to switch from satellite view to a live camera view. Also, if you look at the maps carefully, random parts of countries seem to glow for no good reason. We wonder what is so interesting about the northern part of Arunachal Pradesh and the Rann of Kutch that it is dazzlingly brilliant, while everything else in India is dark. Cameras in the movie seem to have interesting shaped corsairs that don't really serve any purpose. And the beeps. Why should a perfectly normal aerial camera beep like a hyperactive car alarm? There must be something going on in construc-

Trinity using nmap in the Matrix was really great to watch, but we wonder what language the Matrix is coded in. The Animatrix shows Trinity's activities as a hacker much better

Last time we checked, people could not physically get into machines a la Ghost in the machine, but that does not mean they haven't tried really hard



Eagle-Eye is watching Gujarat

tion companies that the rest of the world does not know about, because they seem to have sprouted LCD panels, and cranes that can be remotely controlled. If there is a crane somewhere connected to a box that is online, we would like to get hold of the IP. While most LCD screens have a great colour gamut, they seem to be wasted in movies, as the colour of choice for any kind of readout or video stream, seems to be blue for some strange reason. Is it because it is creepier? More suspense? We don't know if there is some cinema colour theory going on here, but it sure does look unnatural. Notice we are carefully skirting the issue of the GLaDOS like wonder machine? That's because it brings back painful memories.

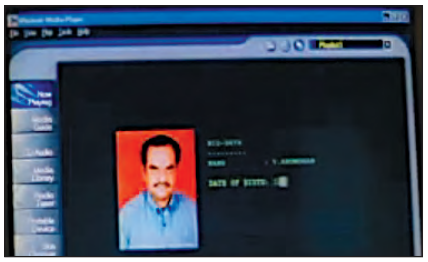
Ocean's Thirteen

Ever noticed the kind of things that enters into consoles on screen? It's almost as if the semantic web is here, but only accessible to some sort of elite crowd comprised either criminals or security agencies. A query string of "search for known associates" instantly throws up a screen of exactly enough hits to fill the screen, in order to smoothly come on in an orchestrated transition along with some gibberish on the side. There is always some random text scrolling in the background or along the sides, that resembles the Matrix code in almost every movie that shows a computer screen. No one knows what it is doing there. Next step "Upload to WBANK" in the console. We really wish computers worked that way, uploading search hits the second we get it, directly onto remote hard disks, without needing to specify a location. Email, sometimes is an elegant solution.

Some South Indian Movie

You would expect South Indian movies to show a higher level of understanding about computers, considering that they have contributed verbs such as "Bangalored" to the global tech lexicon. Unfortunately, no such luck. In one memorable sequence, a hacker sips a steamy cup of coffee and hammers away on the keyboard while a storm rages outside, and the random text scrolls on screen. So far so good. Then things go to another level entirely, when the hacker gets into a database and views a profile, all within Windows Media Player, which can

Search results animated in a way that could shame Crysis, and random gibberish along the sides



WMP, a part of every hacker toolkit

clearly be seen on screen. Come on, just a double-click, and you are in full screen mode. Maybe the director thought that the flashy buttons would be mistaken as an exotic OS shown in those foreign films.

Firewall

A crack team of hackers barge into a house, carrying loads of equipment. Then one of them gets out a LCD panel. Think about it, a laptop would do as well, and

The iPod - fax scanner head camera

take up less space, and give little trouble over the wiring. Fortunately, seconds later, another hacker from the team gets out a huge briefcase full of - you guessed it - wires. Back in 2006, there seem to be a select few people who received an advanced invitation to Google Wave. The movie has a pretty amazing sequence where Harrison Ford is about to send out an e-mail. He types out a sentence, and is about to click the send button. Suddenly, the cursor starts backspacing on it's own, and a hacker's correction to the mail appears on screen. Midway into the movie, Ford hacks apart a Fax machine, and rips out the scanner head. Then he borrows his daughter's iPod. He put's them together using a convenient circuit board made for that purpose lying around. The device does something complicated involving scanning a screen, an OCR program, and somewhere down the line - money. Seriously, someone should inform this guy about digital cameras. Or even better, the PrintScrn

Some of the older movies had it right. Ferris Bueller's day off uses some low-tech hardware for a social engineering approach to get a day off from school

key. After the scam is done, the best way to dispose of this odd device that no one will suspect of being incriminating? Throw it in the trash can. Haven't these guys ever heard of dumpster diving?

Primer

This movie is full of jargon from the Principles of Quantum Mechanics text book. Some of the hardware shown in the movie was really strange - a switch-board of around twenty switches, marked

There is something going on here that we don't know about

by single alphabets with something like five wires coming out of it. There must be some interesting permutation/combination mechanisms here, but that was never really explained. We are sure someone actually working with whatever hokey brand of science the movie portrays would punch holes in all the complicated dialogues. We'll pick a simple one that everyone knows. Russians never used a pencil to write in space, underwater or upside down. For those who believed that the NASA guys were suckers for spending a bomb on a pen that could do all that, bear in mind how easy it is for pencil marks to fade.

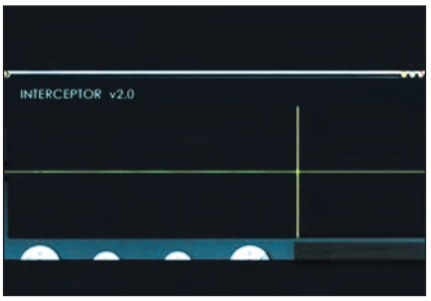
Swordfish

One really bad-ass guy threatens one really talented hacker to break into a US Department of Defense console protected with 128-bits of encryption. The machine is something like a laptop that has a login screen. Now what Jobson the hacker does with the machine is really incredible. The login screen just disappears, as he tries a number of ways to... bypass the login screen. Apparently the world's best crackers can beat the encryption in under an hour. Not true, never been done, and never will be. The universe will never last long enough to decrypt that level of encryption as long as procedures are followed. Crackers have managed to circumvent specific implementation of the encryption though, and Jobson manages to do it, with a few dozen random keystrokes, and totally irrelevant text scrolling on the screen. The last time we checked, such hacks mostly involved giving a few commands and waiting. Actually, getting a USB drive full of magical software, and clicking a button would have been so much more real. The movie makes it look like you give a really good hacker enough money (and other incentives), then hacking takes no time whatsoever, which is just not true in real life. Hackers have to distribute work over a network to break a 64-bit key, the 512-bit one in the movie would keep all the biggest botnets in the world busy for a few millenia. Swordfish even takes us back to the old Ghost in the Machine days for a while, with a few glorious seconds of flying through cyberspace and tracking wires. Must watch for the long, animated demo on how to compile a worm.

A Wednesday

The operating systems in this movie seem to have a magical interface that can be controlled mentally. With almost no related

Somethings are, last time we checked like cracking 512 bit encryption faster than it takes to put in the password



The Interceptor doing its thing

input, they figure out what is going on in the plot, and decide to take the appropriate actions. The Windows pop up on their own, showing the random text and icons whenever possible, and at strategic timings, a search bar, a voice waveform or a box that says "untraceable" keeps showing up. Most of the software in the movie, for example, Interceptor v2.0 don't even have an interface of any kind, no buttons, no console, just a window that gives all the output that you might want. We really wish technology were this magical. Apart from the interfaces, the depiction of technology in this movie was pretty accurate.

Live Free or Die Hard

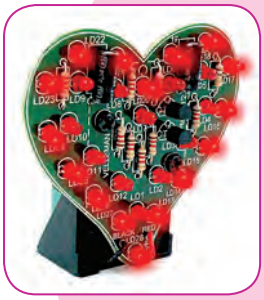
This is another movie that suffers from the blue screen syndrome, where most of the terminals prefer to show information only in blue. The operating System used in this

Ooh, so many buttons, this must be complicated

movie is really strange sometimes, there are just the readouts without any input options or buttons available, and pop-ups from a browser window seem to show up from all the sides, instead of just one direction. What really takes the cake is the simple software based control over all kinds of grids in America that exists. One guy with access to a system can apparently send gas down any direction in a pipeline.

Have a Geeky Valentine?

If you're trying hard to think of a gift for your valentine, and all you can come up with is a sandwich maker, we are here to help. If your computer is your valentine however, no one can help you



DIY LED heart, Rs. 500

This is some strange thingamajig with a circuit board, resistors and loads of red flashing LEDs. You cannot simply buy these off the Thinkgeek store and gift your valentine though, you have to painstakingly follow the instructions to craft the thing together before you gift it. If you want something a little more cheeky, go for the HTTP error code underwear from the same store, including the classic "403: Forbidden".

Multi headphone jack Rs. 40 - Rs. 350

Pick up a two-way headphone jack, and both of you can listen to music from the same PMP, provided it is powerful enough to drive it. There are good models available from Belkin, and there are squid like multi-headphone jacks in the market with up to five ports, if you are into that kind of a thing.

Control your Man/Woman remote, Rs. 1,000 each

These are remote controls for your partner, and shoot out phrases like "must... have... chocolate..." or "you are not going out like that" from a small speaker when you press the appropriate buttons. The remotes for controlling men are out of stock though, the last time we checked.

Two way Radio Rs. 6,500 to Rs. 9,500 per piece

The Indian website www.iconetwireless.com sells a range of walkie-talkies that ship with a licence. A pair of these won't come cheap, but once you have them, you can always have a chat within a 20 KM radius. If mobile phones are an obsession, a pair of these can actually be economical.

Sony NWZ-W202, Rs. 4950

The iPod Nano is passe now, if you want to pick up a small, lightweight PMP, go for the SOny NWZ-W202. The model is available in a range of colours, and is kind-of heart shaped if you are not using it. Although we have showcased the pink colour here, the white and black/metallic ones look much sleeker.

Mobile-Spy Rs. 5,000 per year

Mobile-Spy is a service that stealthily monitors a wide range of cell-phone activity and stores the data online. Once installed, the software shows no visible signs of working, and collects information such as GPS location and SMS messages, and uploads them to a web site through which you can monitor the activity.

Philips/Swarovski Heart Beat 1GB

If you really must get a heart-shaped USB drive for your valentine, rise above the crowd by getting one with a little bit of bling on it. Though 1 GB might not say much in these times, the drive at least doubles up as a pendant.

Media coder
Mediacoder (www.mediacoderhq.com) is a free media transcoder that supports NVIDIA's CUDA computing

bbLean
This free, light-weight shell replacement based on Blackbox is just a 403 kB download

digit & NVIDIA. neighbour's eNVy

Digit thanks everyone who voted for the "Digit and nVIDIA Neighbour's eNVy contest". Here's the story of Ankush Das who almost didn't make it to the competition...

It has been three weeks since I received my spanking new graphics card and since then, it has been no turning back. It has been delivering visual eye candy beyond what I and my family imagined possible. But now that I look back, I nearly lost out on my chance to enter the contest. Thanks to Digit and Nvidia I got in. Here's what happened.

When I applied for the Digit and Nvidia Neighbour's eNVy contest I was out of town. Since my mom is in the army, our family had planned a holiday to Manipur, where she is posted. So on that fateful day I saw my dad sprinting towards me. Breathless, he handed over the phone to me and said it was a call from Digit. I was instantly feeling like I was on the seventh heaven. The digit representative asked if we were available on the 1st January 2010 but unfortunately, we were going back to Kolkata on 3rd, no sooner. When I asked her about 4th but she didn't sound too optimistic and I realised that probably a chance had gone down the drain. I started to believe it was over. But I decided to give one last try. So I tweeted Digit (@DigitIndia) for whom to contact for the contest and I got a reply soon enough. I quickly dashed to write a message to digit to see if 4th January would be feasible. I waited the whole evening in anxiety and finally got a call. A very polite, kind and optimistic person answered all my queries but unfortunately, informed me that finalist selection from Kolkata was already done. I was obviously shattered, and sensing this he said he'd see if he can do something.

I cant tell you how happy I was when I got a call back that I was officially in the contest. All I had to do was make sure someone was at my home to receive the representative with the graphics card. He reached my home at 6 in the morning! He got down to installing the card when of all the bad luck, there had to be a power cut. *Groan* That's the last thing I wanted to hear. But he waited patiently and finally around 10, he told all had been done. You guys will be my heroes forever. Winning is secondary, all I ever wanted was great support and a few great weeks and yes, I am very proud to say that it was what I got. I can safely say, Digit and Nvidia, you guys are the best when it comes to commitment. It's a very emotional and happy moment for me to be remembered and cherished, always.

December 2009

digit events

Digit is taking interactivity to a new level, and will be organising events every month. You get to meet and interact with people that you wouldn't in the normal course of your life — industry experts, Team Digit, and other readers with similar interests. Stay updated and stay ahead of the curve by looking for this page in every month's magazine.

1 Career Webinar — Virtualization

FEBRUARY 5
TIME: 1700 HRS

The Data Center is undergoing dramatic transformation fueled most significantly by Virtualization. Virtualization has allowed utilization of resources to be taken to unprecedented levels of up to 90% in most cases, which has helped drive down costs significantly. And hence Virtualization has an impact on Operating Systems, Cloud Computing, Applications and Data Center management. Join Gaurav Makkar in this exciting webinar, as he describes this landscape in greater depth and the career opportunities it presents. Gaurav is an architect, researcher and a senior engineer at NetApp - a world-wide leader in virtualized storage solutions for large Data Centers.

2 Digit Webinar — Exploring Windows 7

FEBRUARY 13
TIME: 1700 HRS

Windows 7 has generated a lot of interest in the Indian computer user's community. This is probably the first time a large section of users will be upgrading for the first time from their old favourite XP. Yes many will actually be giving Vista a miss. So come and explore Windows 7 with us. In this webinar we'll cover a "7 best features of Windows 7" walk-through, and give you some secret tips for smooth sailing. If you're still on XP or Vista and are wondering what all the Win 7 fuss is about, this webinar is a must for you.

For details on upcoming webinars and to view past webinars, visit **thinkdigit.com/webinars**

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Fancy Desktop? Here's how digit reader Akshat Tandon from Lucknow did it:

PC is running Windows 7 with desktop customising software Bump Top is providing all the 3D wall effects. A theme for Bump Top called Under the Ice is used to provide all the frosting. The two gadgets are standard Windows 7 gadgets, one is the clock gadget provided by default and other is the weather bug gadget. The Aero Firefox is created by the use of following addons – Strata40, Strata Buddy, App Tabs and Fission. The icons are arranged manually. The photo frame and the sticky note are simply default features of Bump Top.

You are the weakest point
The weakest link in the security chain is often cited as you. No amount of spam detection and internet security suites will protect you from a good con

Phishing and Pharming
Always check the complete URL of a web site in the address bar before keying in your login details

Consumer Protection

How to get help if your online presence is compromised

Siddharth Parwatay
siddharth.parwatay@thinkdigit.com

When we live half our lives in the cyber world, there are bound to be cyber crimes. Today our life is increasingly dependent on the online world be it electronic documents, transactions, communication and even livelihood. In such a scenario there will certainly be undesirable elements in this world who will try to invade your peace. Here we will give you the lowdown on all the cyber crimes you should know about, and what steps you should take to report the crime to the proper authorities. First lets look at, what cyber crime means. The Banglore Cyber Crime branch defines it as "an unlawful act wherein the computer is either a tool or a target or both"

Here are some of the common cyber crimes and what is involved in each of them. We asked Mr. Rakesh Goyal for advice on prevention methods and reporting advice. Mr. Goyal is a veteran of IT Security for 18 years with 6 books and 50 research papers. He is the Managing Director of Sysman Computers Private Limited and Director-General, Centre for Research and Prevention of Computer Crimes.

Cyber Crimes

Email abuse – Receiving vulgar e-mail from a known or unknown person. This may include receipt of threatening / abusive / obscene content.

Email hacking / Privacy attack – Someone accesses your email or social networking account

Cyber Stalking – Cyber-stalking refers to the use of the Internet, e-mail, or other electronic communications devices to stalk, follow or keep track of another person. In cyber stalking the criminal commits repeated acts of harassment or threatening behaviour towards the victim by using Internet services such as email or social networking web sites.

Denial of Service – In this case the cyber criminal floods the bandwidth of the victim's network with repeated requests. Eventually this consumes the bandwidth of the network which then fails to serve legitimate requests and ultimately breaks down.

Hacking – This involves illegal / unauthorised intrusion into a computer system or network.

Cyber impersonation / Cyber defamation – If someone sets up a fake profile of you on a social networking web site and posts from that profile.

Online Fraud – This includes anything from phishing web sites, email scams, virus hoax emails. Fraudsters create seemingly authentic web sites or email the victim to divulge sensitive information such as login ids and passwords.

In all of the above you need to report these crimes to the nearest Cyber Crimes Investigation Cell or nearest police station. Certain police stations in the country have been assigned as Cyber Police Stations. In case of hacking, intrusion attempts and online frauds, you should also report to CERT in addition to the nearest CCIC.

What do you need to take along with you while registering the complaint?

In case of email abuse the Mumbai CCIC advices you not delete the mail and to extract headers from such email. You will usually find this in "view full message" or "view source" type of options in mail clients or web based mail. The Mumbai CCIC web site gives exact details on this procedure. In case of a hacking attack you should take along and retain:

- Server Logs, Copy of defaced web page in soft copy as well as hard copy format, if your website is defaced

If data is compromised on your server or computer or any other network equipment, soft copy of original data and soft copy of compromised data.

- Access control mechanism details i.e.- who had what kind of the access to the compromised system
- List of suspects – if the victime suspects anyone
- And relevant descriptive answers that will give information leading to the answers to what, who, when, why, where.

You should also write a complaint letter, with a description of what has or appears to have happened and explaining in what way you are a victim or aggrieved party. Backup all data, as it is evidence. Once, the prima-facie case is established, the FIR is registered. "If the proper leads are available, the success rate is over 90 per cent in case of email, Orkut, Facebook related crimes or harassment, if originated in India," says Mr. Goyal.

Below, you will find a list of relevant contact details of important cyber security centres around the country.

Organisation	Contact
Chennai ACP Cyber Crime Cell	cyberac@rediffmail.com
Mumbai Cyber Crime Investigation Cell	officer@cybercellmumbai.com cybercell.mumbai@mahapolice.gov.in
Hyderabad Crime Investigation Department	cidap@cidap.gov.in http://www.cidap.gov.in/cybercrimes.aspx
Bengaluru Cyber Crime Police Station	ccps@kar.nic.in http://www.cyberpolicebangalore.nic.in/
Indian Computer Emergency Response Ream (CERT)	incident@cert-in.org
Trivandrum Cyber Crime Reporting Center	www.cyberkeralam.in

Ratchet & Clank Future: A Crack in Time

Sameer Desai
readersletters@thinkdigit.com

At a time when games are increasingly becoming about bigger guns, more blood, and bald space marines on a mission to save the world, games like *Ratchet & Clank* are finding themselves out of favour with the newer, younger audience. The popularity of what was once one of the PlayStation's biggest franchises is now on the wane. And that's a shame, because Ratchet & Clank's brand of action platforming and puzzle gameplay is still some of the best in the industry.

There have been rumours that the latest game in the series – Ratchet & Clank: A Crack in Time – may very well be the last, at least for a long time. If that's true, it's truly the end of an era, but the unlikely Lombax-robot duo go out on top, because A Crack in Time is possibly the best game yet in this illustrious, long-running franchise.

A Crack in Time is the culmination of the Future trilogy and picks up after the events of Tools of Destruction and Quest for Booty. Clank, kidnapped by the Zoni alien race, is now imprisoned by the duo's arch nemesis, Dr Nefarious. Helping Ratchet on his quest to rescue Clank and stop Dr Nefarious from carrying out his evil plans is Captain Qwark. Anyone who's played past games knows that with Nefarious and Qwark around, the potential for humour is immense, and this game doesn't disappoint. The writing is brilliant and the loveable characters will definitely get a chuckle out of you at least a few times.

But this is, after all, an action platformer and the gameplay is where this game truly shines. The quirky weapons and gadgets that are a hallmark of the series are here, including, what can vaguely be described as, a mini hippopotamus that kills enemies by belching. The deadly Mr Zurkon returns, and there's never a dull moment while he's around, killing everything in his path whilst declaring that he does not come in peace.

Ratchet & Clank: A Crack in Time
Developer: Insomniac Games
Publisher: Sony
Genre: Platformer
Platform: PS3 (Rs 2,499)

Platforming is at its best in A Crack in Time. In addition to the fast-paced rail sequences, you now have hover boots with booster pads strewn around the environment for increased speed and spectacular jumps. As always, there is interplanetary travel, but rather than a simple cut scene, you can now manual travel from planet to planet and complete side-missions on the way. These small planets yield collectibles and power ups and house some of the best classic platforming segments in the game.

Weapons also feel just right. All your weapons, and even your space ship, can be upgraded to better accuracy, rate of fire and damage and the shooting mechanics feel a lot tighter and responsive than in past games. There's a lot of potential for big explosions with the weapons available in your arsenal, and thankfully, even when there's a lot happening, seldom is there a noticeable drop in the framerates.

While it's always fun to play as Ratchet, it's the parts where you play as Clank that really stand out. These are mostly puzzle segments that deal with time control, where you will use time pads to record your actions and replay them, allowing you to perform multiple tasks at the same time. There is no such thing as a puzzle game that is too hard. Some of these puzzles will require some serious head scratching, and these are easily some of the most unique and intriguing parts of the game.

If Tools of Destruction was the closest a game has come to Pixar-level visuals, A Crack in Time reduces the gap further. But it isn't the graphics that will make you love this game; it's the characters, the humour, the story and above all, the classic *Ratchet & Clank* gameplay.

Halo Reach
This game would have made it to our list, if not for a lack of local fandom. Unfortunately, the game is coming out only for the XBOX 360

Games to watch out for in 2010

There are some really high profile releases lined up this year. The year marks the maturity of modern gaming consoles in the market, and games that have been in development for some time now are finally coming in. PC gaming is taking somewhat of a back seat, and some long anticipated releases are coming out only on portable consoles (Duke Nukem FTW!). There are awed whispers flying around of Starcraft II, FEAR 3 and Diablo 3 as well, but here we present the confirmed releases. They say that 2010 is going to be the year of 3D television, or of internet tablets, but we already know that it is going to be a great year for gaming, so get out your calendar and mark the dates.

Aditya Madanapalle
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Bioshock 2: Sea of Dreams [PC] [PS3] [XBOX360]

Release Date: Feb 9, 2010

Three years after the world first saw Big Daddy, Bioshock is back with a sequel to the game, and it is almost upon us. The anticipation has been building up for a long time now, and the distributors have been feeding the frenzy. In one promotion, Wine from the game city of Arcadia washed up on a few beaches that fans were directed to from www.somethinginthesea.com. Gamers will get to dive into the deep sea with Big Daddy, and there is also a 6 gamer multi-player mode, which seems to be very similar to Left4Dead.

Red Steel 2 [Wii]

Release Date: March 25, 2010

This is one example of the perfect game for the console. This is a hack and slash, and uses the Wii motion plus to simulate accurate arcade-styled, sword fighting on screen. Ok accurate, arcade style sword fighting. There is quite a bit of gunplay involved too. The developers have actually worked a bit on the hardware as well, to make it reflect sensitive movements better. We don't really care about the plot, the environment or the characters, we just want the virtual sword in our hands, and hoardes of enemies to slash up. Till the release, you can try out the trailer, which shows hardly any gameplay, but it is still an adrenaline rush.

God of War 3 [PS3]

Release Date: March 2010

If you can name a God from the Greek pantheon, chances are that you will get to battle him as a boss in this upcoming title. Apollo, Poseidon and Zeus himself is on the list. The number of enemies on screen at any point of time will also increase in this version. We cannot wait to ruin our DualShocks. Unfortunately, this is the last planned instalment in the series, and the developers hope to give the series a nice wrap-up, a better approach than the NFS line of thought.

The Duke Game that never was

In 2009, Duke Nukem: Forever was a game that was supposed to be released almost every year since the Millennium, but never was. The team finally disbanded, after providing us with over ten years of screenshots and videos

Assassin's Creed II [PC]

Release Date: March 18, 2010

Yeah, we know, you have already played the game many times over, you can now find your way around Venice, and are on first name basis with the Pope. There are however, those unfortunate people who only have a PC for a console, and they can do little but try to forget all the forum posts and reviews. It's just a month away, and we hope that the time has been used to make the game PC-ready.

Star Wars: The Force Unleashed II [PS3] [XBOX360] [Wii] [DS] [PSP]

Release Date: December 2010

There is one trailer at large for this title, and it packs in more epic than the prequel trilogy put together. The trailer shows Darth Vader tutoring Star Killer (the deathstar could only ever do planets) in the ways of the Dark Arts. This bit is a little sissy, with some really dated dialogue, but then out comes a gigantic gorilla, which looks like it is made up of ten King Kongs, and the very last frame is Star Killer going at it with just two lightsabres. Two Blue lightsabres we might add. There was also something like Dark Yoda's voice, we are not sure what it was.

Crysis 2 [PC] [PS3] [XBOX360]

Release Date: December 2010

Warning: don't read ahead if you have a heart condition. The Crynet Systems Nanosuit 2.0 will make its debut. In a Nanosuit brochure, there is a point made about underwater ability, ability to pick up ambient data streams, and full spectrum acuity (it means super night/thermal/other? vision). There are some tantalising teasers online, but these are few and far between. The game is very much in development, and nowhere near ready. The gaming community might get their hands dirty with the CryEngine 3, which happened for previous releases. There seems to be a hush around the title, and we just hope that this one does not get pushed into next year.

Max Payne 3 [PC] [PS3] [XBOX360]

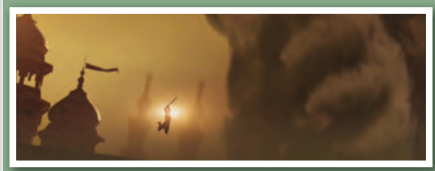
Release Date:
Post October, 2010

The official web site has only six wallpapers, and a link to Rockstar game's RSS feed to keep a look out on updates. There is no confirmed release date, and the site just says "coming soon." Well, it cannot come soon enough, and was supposed to be out last year. From what we can make out, Max Payne has become older, a character on the lines of Hartigan from Sin City.

Prince of Persia : The forgotten Sands [PC] [PS3] [XBOX360] [Wii] [DS] [PSP]

Release Date: May 1, 2010

This instalment in the series that is bewildering everyone but (us) fanboys, will be released alongside the PoP movie due this year. The trailer looks amazing, and the story will continue along the lines of the Sands of Time story arc. This game returns to the old non-cell-shaded approach, and our biggest disappointment is that we will not be seeing Erika in action. But this game is releasing in all the current consoles worth mentioning, so everyone is going to be happy.



Hackers program bacteria

Ok, they were scientists actually, who programmed the fluorescence in bacteria to keep time, essentially turning them into tiny clocks

PETA like the Na'Vi

PETA is extending the definition of animals to include extraterrestrial furries, by awarding James Cameron a prize for showing Aliens as pretty nice beings for a change

Geek culture: *Pac-Man*

Pacman was one of the first games that a lot of people played, and the fandom for the game is deep enough for this game to have complex strategies based on movement and AI that rivals those that have been developed by players, for say, Quake 3.

Concepts

SPLIT SCREEN
The final level on the original game is unplayable, and it once had a $100,000 price on its buggy head.

GHOST MODES
Scatter, Chase and Fright are the three possible ghost behaviors. You can predict these based on your movement.

CORNERING
Once of the survival tactics, cornering involves giving an instruction to turn before the Pac-Man can perform it.

Analog

PACMANHATTEN
A real world game played by people who dress up as Pac Man Characters going around the city collecting dots.

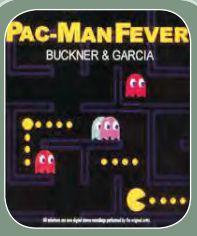
BOARD GAME
Milton Bradley released a board game version two years after the virtual release with LEDs and plastic ghosts

ROOMBA PAC-MAN
A bunch of students implemented PacMan using five Roomba vacuum cleaners

Media

PAC-MAN MOVIE
Crystal sky pictures announced a movie in 2004, but the IMDB page has a strange fan video which is a laugh.

PAC-MAN SERIES
The TV series was one of the first to be based on a video game character, and featured Pac-Man and his family.



PAC MAN FEVER
Buckner and Garcia's one hit wonder involved the band crooning to how addictive playing Pac-Man was

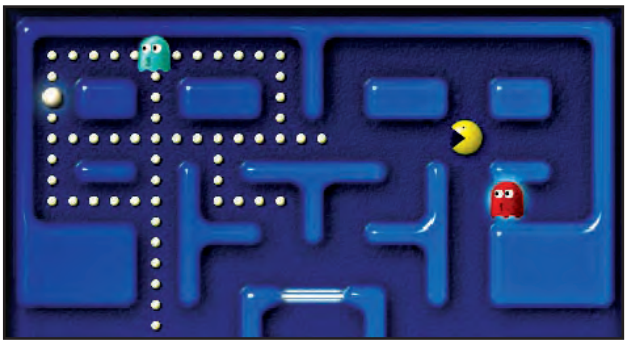
digit DIARY

We have a couple of new people on the team, Nimish and Karan who haven't yet played a game of Quake with the rest of the team. This is the longest ever that new recruits haven't been humiliated by the business end of Rossi's gauntlet. In the virtual world that is.

We moved to a new office space this month, and looking at all the Monitors lined up gave us an idea. We were thinking of a LAN based virtual pet, that can run across screens and basically interact with whoever is free. The client application should be synced in a manner that it understands the real world positions of the screens. We were thinking it would be great to retain or kick this pet from one screen to the next. If you have already began coding such a thing, be sure to send a copy of it to us, and just apply the same to software windows and browsers as well.

Flash Games: Anti Pac-Man

For over 30 years, Pac-Man has been doing rounds in a maze, gobbling dots and generally giving Inky, Pinky, Blinky and Clyde a hard time. It is finally time for the ghosts to fight back. In Anti-Pacman, you will have to throw three years of gaming inertia to the bin, and play instead as one of the four ghosts. While you are in control of a ghost, the other ghosts behave in classic Pac-Man fashion, and be careful when you turn blue, as Pac-Man can gobble you up then.



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Stay up to date with internet lingo, so you don't wt? the next time you are chatting with someone

froob: A "freaking nOOb", a nOOb so nOOb that nOObs call him a nOOb. Not to be confused with frood.

frood: a variant of "cool", to describe a person. Froody is the adjective.

j00: slang for the word "you"

Movies
A Wednesday: We caught up to this movie, has an unusual amount of tech for a Bollywood film, and it's a pretty sensible watch

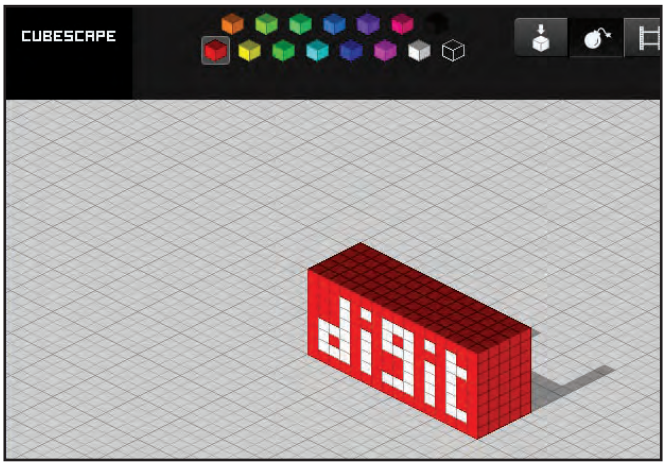
Music
We've been listening to some John Wesley, a member of Porcupine Tree. Some of his tracks are free to download.

Game
AVATAR:
The gameplay may suck, but we just like to go sightseeing on Pandora. Demo is on the DVD

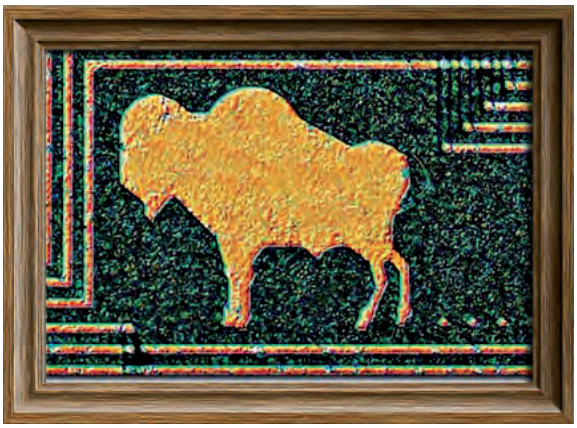
Move over robot dogs, Pleo is here

What's better than a robot dog that jumps around and listens to instructions? A pretty realistic robot dinosaur, that's what. Pleo was showcased at CES this year, and ambles around on his saurapod legs when not playing with your kid. We just wish there were life sized fire breathing versions in the market

Cubescape



Cubescape is a great AJAX based web site that let's you drop cubes in a field. This let's you come up with elaborate isometric art, depending on how much time you are willing to spend on it. Till recently, users could save their creations, and people could browse through them. That functionality has been recently disabled, although there are a few great creations still searchable through Google images. Depth can be very misleading in Isometric art, as everything actually looks the same distance from the viewer, what you see above is not a solid block for example. Look carefully at the shadows, and you will see a hole in the block. Once you have created a cubescape, you can play it back.



tech art: Microchip art

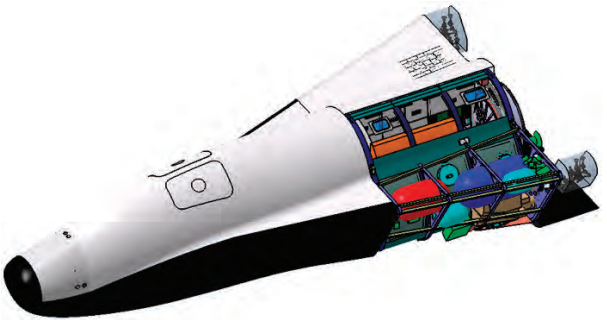
The next time you look at all the lines and blips on a circuit board, don't think all of it is there for a reason. There are loads of ICs with small, invisible designs on them, ranging from fire breathing Godzilla's to really tiny Rams. If you want to discover these on ICs that you find, you will have to look using a really powerful magnifying glass. Just make sure that the sun is not behind you when you are hunting though. Microchip art does serve a purpose however, they are there to make sure that no one copies the design, as copied designs will have a flag in the form of the chip art as well. This makes sure that piracy in the silicon manufacturing industry is sure to be caught. We just wonder if manufacturers of all kinds of silicone products mark them in some way.

NEWS

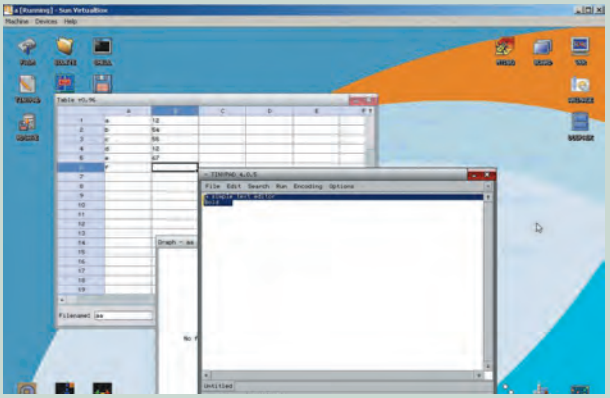
Shuttle engines at throwaway prices

After decades of space adventures, the engines that drove the NASA shuttles are being thrown away. As long as you can pay for the shipping and handling, you can pick one of the three remaining shuttle engines for free. This is because the Shuttle program is being replaced with the Ares V launch craft, which is a more streamlined vehicle that looks a bit like the Russian Soyuz. This is a rare case where the streamlined version does not look as awesome, but are probably safer. The Lockheed craft have wings that are really retracted, and look a tad better (shown below).

It's not the engines that are up for sale. If you have around US$30 Million lying around in the pockets of an old discarded jacket, you can pick up Discovery, Endeavour and Atlantis. Not all three of them, just one. Don't dream of space travel though, as the engines are being removed. At least don't dream of space travel and expect to come back. We are pretty sure that the shuttles will not leave the United States though.



The amazing 3MB Operating System



Kolibri desktop is a small 3MB Operating System, that is written entirely in machine code (CPU Language) and is not based on Linux, Windows or any other variants. What is surprising is the number of applications packed into this tiny file size. There are a whole bunch of games, a basic tables editor, a compiler, a text editor, a bouquet of demos, a text based web browser and more. There is also DosBox, which let's you run almost any DOS game on Kolibri. While not meant for serious use, the tiny OS shows how bloated Windows and Linux really are.

Get more done in less time using your keyboard

There are many keyboard shortcuts that make working with computers simpler and faster. There are some simple keystrokes that are as handy as [Ctrl] + [C] and [Ctrl] + [V] when it comes to operating computers.

Here is a very short list of handy Windows key shortcuts. The [Windows] +[E] lets you open Explorer, +[D] displays the desktop, +[M] minimises all windows, and +[R] opens the run dialogue.

What exactly is attacking my computer?

When it comes to security threats, it's no longer as simple as a virus. There are many kinds of malware that attack your machine. Here is a quick look at what they are and what they do.

Virus
A program that piggybacks on other files, and spreads with malicious intent, these are actually uncommon now
Common sources: public computers, flash memory, LAN
Solution: Use a security suite

Worm
Unlike a virus, a worm can spread without attaching itself to files. It is also programmed to change itself, making variants more difficult to detect. Sometimes worms are updated remotely.
Common sources: LAN, email
Solution: Update the system and anti-virus, use a firewall, track security patches

Trojan
A Trojan is a software that pretends to work for you, but is actually doing something else, being a part of a botnet or allowing for unauthorised access.
Common sources: torrents, suspicious downloads, web sites
Solution: be careful of what you download

Exploit
An exploit is an inherent "hole" in an operating system or software, that allows malware such as Trojans or viruses to spread
Common sources: The base operating system, installed software (such as office suites)
Solution: keep your system and applications updated

The Jargon File

- **Benchmark:** A software for testing a particular piece of hardware. A graphic card benchmark would render a lot of polygons and effects. A CPU benchmark would feed in a lot of calculations, and so on.
- **Distro:** A distro is a distribution, or flavor of the Linux operating system. Common Linux distros include Ubuntu, OpenSuse and Fedora.
- **Ethical Hacker:** An ethical hacker is someone who finds out possible weaknesses in a network or a system before the bad guys do.
- **GUI:** A GUI, pronounced Gooey, stands for Graphical User Interface, which is a set of buttons, windows, panels and other devices for users to interact with a machine using a mouse and a keyboard, or other input devices.
- **MID:** Mobile Internet Device, can be a Mobile Phone with internet access, or a netbook. PMPs that interface with wireless networks are not MIDs. Any device that allows significant activity on various web sites is an MID.

It's not just a laptop anymore: a lowdown on portable computer form factors

Laptop: a device that serves either as a desktop replacement or a portable gaming rig.
Characteristics: Large screen, full QWERTY keyboard, good system.

Notebook: It is usually sleek and light, but bulkier than a netbook. Used for documents and presentations.
Characteristics: Sleek and lightweight, large screen.

Tablet: A Tablet is like a digital slate, with a full touchscreen surface, and no keyboard.
Characteristics: Is basically a large touchscreen

Netbook: a small and lightweight device meant for the internet and the cloud, for people on the go.
Characteristics: Small size, lightweight, long battery life

Smartbook: Has a range of connectivity options, a hybrid between a smartphone and a notebook.
Characteristics: Connectivity options, lightweight, long battery life

UMPC: Stands for Ultra Mobile PC, a tablet with a sliding keyboard, speakers or other peripherals.
Characteristics: Lack of a folding screen, low processing power